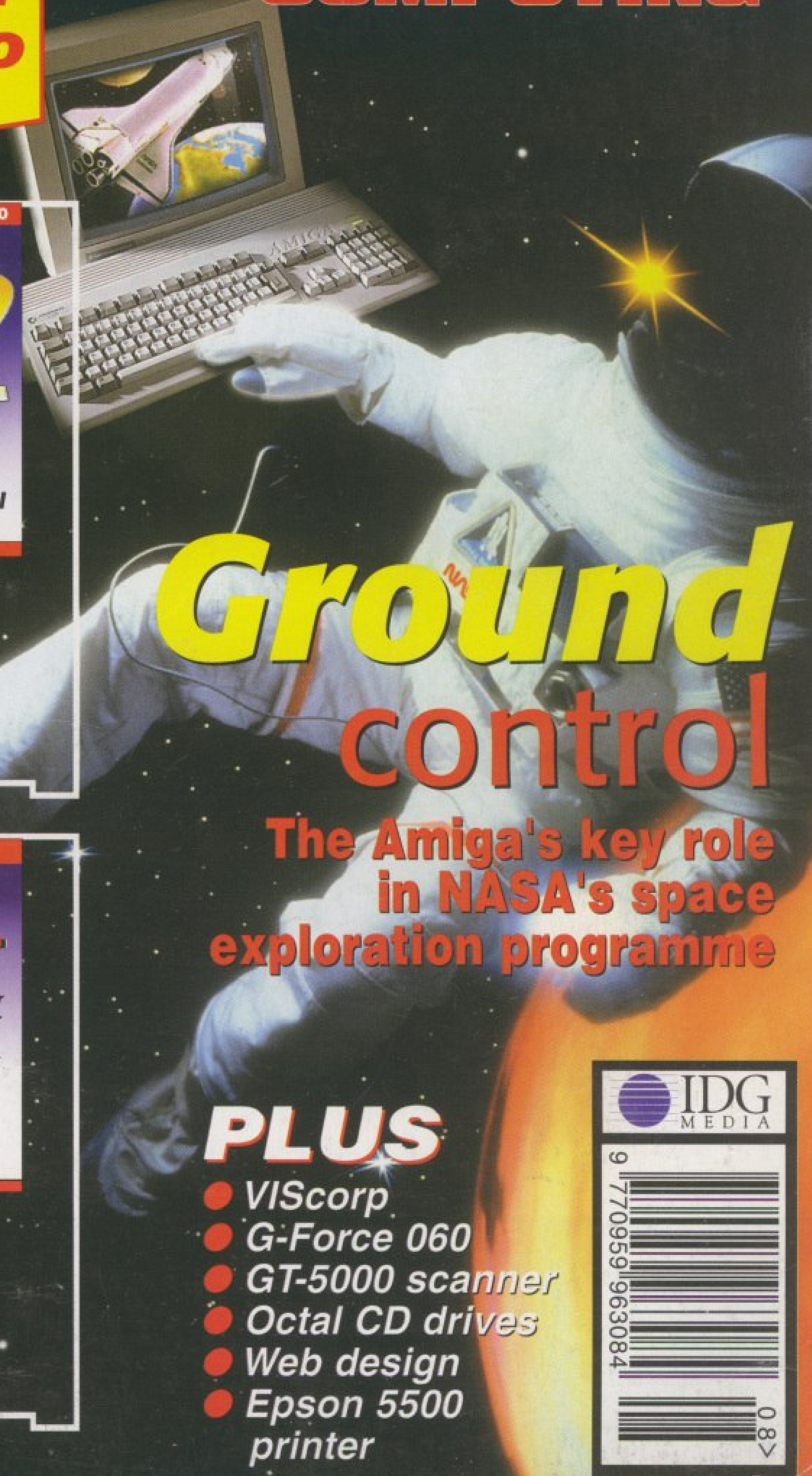
Issue 102 ■ August ■ 1996 ■ £4.50 Overseas price £4.50 Hfl 20

AMIGA COMPUTING

Spectacular digital video effects!



August 1996

AMIGA COMPUTING

Requires hard drive, 2Mb RAM, 68020

X-DVE 2

Create and modify the most impressive animations with Amiga Computing's exclusive demo of X-DVE 2, the digital effects generator

August 1996

AMIGA COMPUTING

Requires hard drive, WB 2.04

Top gear

- **Championship Manager Ed** – a team editor
- **PhotoAlbum** – the fastest picture cataloguer
- **SoundBox** – a multi-format sample editor
- **TinyMeter** – good looking program launcher
- **ATAPI Device** – use IDE CD Drives
- **EasyPrint** – improved graphic printing
- **Print Manager** – a spooler for your Amiga
- **EasyLink** – connect your PC and Amiga
- **ScreenTab** – simple screen switching

Ground control

The Amiga's key role in NASA's space exploration programme

PLUS

- VIScorp
- G-Force 060
- GT-5000 scanner
- Octal CD drives
- Web design
- Epson 5500 printer

IDG MEDIA

9 770959 963084 08

XL 1.76MB



XL DRIVE **£69.95**

INT.DRIVES



FROM **£30.95**

SYQUEST EZ



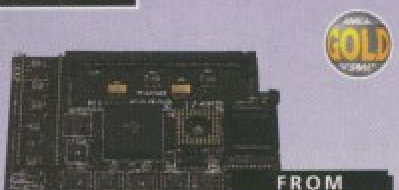
EZ 135MB **£239**

GENIUS



GENIUS TAB **£195**

68020EC



FROM **£99.95**

EPSON SCAN



MEGACHIP **£479**

POWERSCAN



FROM **£89.95**

SUPER XL DRIVE

The Super XL Drive allows you to store 3.5MB on a high density disk.

3.5 SUPER XL DRIVE **£129.95**

1.76 XL DRIVE

The XL Drive allows you to store a 1.76MB on a high density disk.

1.76 XL DRIVE EXTERNAL ... **£69.95**
1.76 XL DRIVE INTERNAL **£75**
1.76 XL DRIVE A4000 .... **£75**
PC880B EXT.POWER DRIVE .. **£49.95**
PC880E EXT.POWER DRIVE .. **£39.95**

INTERNAL DRIVES

PC881 A500 .... **£30.95**
PC882 A2000 .... **£35.95**
PC883 A600/1200 .... **£35.95**

HARD DRIVES

3.5 IDE .... **£POA**
3.5 SCSI .... **£POA**
120MB 2.5 IDE **£89.95**
340MB 2.5 IDE **£169.95**
510MB 2.5 IDE **£289.95**
850MB 2.5 IDE **£439.95**
1 GIGABYTE 2.5 IDE .... **£CALL**

DISK EXPANDER (WITH HD PURCHASE) **£15**

RAPID FIRE SCSI

Rapid Fire SCSI-II controller card. Install up to 8MB on-board. For the A2000, A3000 and A4000.

DKB RAPID FIRE SCSI-II **£139.95**

M-TEC HD

External IDE hard disk for the A500 comes complete with an internal ROM switcher, and upgradable to 4MB RAM

M-TEC AT500 BARE **£99**

PLEASE CALL FOR HD SIZES

MEMORY REQUIRES 30-PIN SIMMS

ZIP DRIVE

ZIP DRIVE 100MB SCSI **£199.95**
ZIP DRIVE Inc. Squirrel **£249.95**
100MB DISKETTE **£19.95**

ZIP DRIVE REQUIRES SQUIRREL SCSI INTERFACE

SYQUEST EZ135

The Syquest EZ135 drive is an ideal storage device. The EZ Drive stores 135MB on a single 3.5" cartridge and has a seek time of 13.5ms. Comes complete with one 135MB cartridge. (A SCSI interface is required)

SYQUEST EZ135MB **£239.95**
135MB CARTRIDGE **£19.95**

SCANDOUBLER II

ScanDoubler II is a full 24-bit AGA flicker fixer which automatically de-interlaces all AGA screen modes and scan doubles non-interlaced PAL/NTSC modes to allow VGA monitors to display them.

SCAN DOUBLER II **£399**

VIDEO BACKUP 3

Backup to 520MB onto a 4hr VHS tape. Version 3 has new backup modes for Amiga's with a 68020 or higher CPU.

VIDEO BACKUP SCART **£49.95**
VIDEO BACKUP PHONO **£45.95**
UPGRADE TO VERSION 3 .... **£20**

FLOPPY EXPANDER

Save 1.5MB on a standard floppy drive and 3MB when used in conjunction with the XL Drive 1.76.

FLOPPY EXPANDER **£10**

PHASE 5

CYBER VISION 64 2MB **£299.95**
BLIZZARD 1260 - A1200 060 **£599.95**

SPECIAL OFFER

BLIZZARD 1230 - A1200 030 **£229.95**
INCLUDING 50MHz FPU

SX-32

SX-32 is an internal add-on card for your CD32 and features: VGA port, RGB port, parallel port, serial port, external disk drive port (1.76MB), clock, controller for 2.5" hard disk, and a SIMM socket (up to 8MB). Turn your CD-32 into a A1200.

SX-32 MODULE **£199.95**

CHIPS & SPARES

256 x 32 SIMM 72-PIN (1MB) **£40**
512 X 32 SIMM 72-PIN (2MB) **£75**
1 X 8 SIMM 32-PIN (1MB) ..... **£POA**
4 X 8 SIMM 32-PIN (4MB) ..... **£POA**
1 X 4 STATIC COLUMN A3000 .... **£25**
1 X 4 DIP **£25**
256 X 4 DIP **£5**
1 X 1 DIP **£5**
CIA **£12**
GARY **£19**
PAULA **£19**
DENISE **£19**
SUPER DENISE **£25**
KEYBOARD IC **£12**
FAT AGNUS 1MB **£19**
FAT AGNUS 2 MB **£29**
PRINTER CABLE **£6**
RS232 CABLE **£6**
SCSI EXTERNAL **£15**
WORKBENCH 3.1 A500/2000 .**£89.95**
WORKBENCH 3.1 A3000/4000 ... **£95**
ROM SHARE DEVICE **£19**
2.04 ROM CHIP **£25**

FOR ANY SPARES REQUIRED PLEASE CALL

PRINTERS/MONITORS

MICROVITEC 1438 14" **£289**
EPSON STYLUS INC.PAPER **£489**
EPSON STYLUS COLOUR IIs .**£249.95**
EPSON STYLUS COLOUR II ..**£335.95**
EPSON STYLUS 820 .... **£219.95**

EPSON STYLUS/PRO XL INCLUDE STUDIO II SOFTWARE

STUDIO II SOFTWARE **£49.95**

GVP HC-8 SCSI

SCSI hard card which can fit 8MB of RAM on-board.

HC-8 SCSI CARD **£99**

GVP G-LOCK

Award winning Amiga Genlock.

G-LOCK AMIGA GENLOCK **£259**

IO-EXTENDER

Zorro II card that provides an additional serial port, parallel port and connection for optional RS422 and RS232 port. Call for details

ioEXTENDER **£69.95**

GVP RAM

Official GVP RAM SIMMs.

4MB GVP RAM **£159.95**
16MB GVP RAM **£459.95**

68060

A 68060 accelerator board for the A2000 running at 50MHz and allowing upto 128MB of user installable memory and a SCSI-II hard disk controller.

A2000 68040 (0MB RAM) .. **£629.95**
A2000 68060 (0MB RAM) .. **£699.95**
A4000 68060 (0MB RAM) .. **£749.95**
4MB STANDARD ADD **£125.95**
4MB GVP ADD **£159.95**

SPECIAL OFFER

MODEMS

ACEEX V32 BIS 14.4 NOT BT APPROVED .**£80**
X-LINK TRUE V34 28.8 BT APPROVED **£199.95**

ALL MODEMS INCLUDE SOFTWARE AND CABLES

HI-SOFT

SQUIRREL SCSI INTERFACE ... **£59.95**
AURA **£79.95**
MEGALOSOUND **£29.95**

squirrel scsi interface included where you see this logo

SURF SQUIRREL

Surf Squirrel offers an even higher SCSI performance, auto-booting, and ultra-fast serial port. Surf Squirrel is the ideal expansion peripheral for your Amiga 1200. Please call for more information.

SURF SQUIRREL **£99.95**

SQUIRREL MPEG

Squirrel MPEG allows you to play VideoCD and CDI CD-ROM's, Squirrel MPEG brings high quality digitally mastered images and 16-bit stereo sound to you and your Amiga.

SQUIRREL MPEG **£199.95**

phone orders
We accept most major credit cards and are happy to help you with any queries.

postal orders
Ordering by cheque/PO please make payable to **Power Computing Ltd** and specify which delivery is required.

warranty
All Power products come with a 12 month warranty unless otherwise specified.

technical support
Help is on hand with a full Technical Backup service which is provided for Power customers.

mail-order prices
All prices listed are for the month of publication only, call to confirm prices before ordering.

export orders
Most items are available at Tax Free Prices to non-EC residents. Call to confirm prices. BFPO orders welcome.

mail-order terms
All prices include VAT. Specifications and prices are subject to change without notice. All trade-marks are acknowledged. All orders in writing or by telephone will be accepted only subject to our terms and conditions of trade, copies of which are available on request.

PLEASE CALL IF YOU HAVE ANY QUERIES

RAM EXPANSION

A 2MB RAM board for the A500 which fits in the trap door slot.

A500 2MB RAM £90

MEMORY CARDS

512K RAM WITH CLOCK £24.95
512K RAM WITHOUT CLOCK . £19.95
A600 1MB RAM £39.95
A500+ 1MB RAM £29.95

MEGACHIP RAM

Increase your Amiga 500/2000 chip RAM to a total of 2MB. MegaChip does this by using its own 2MB RAM and also now includes a 2MB Fat Agnus. No soldering is required.

MEGACHIP RAM £159.95

A500 68020EC

A 68020 EC processor accelerator card for the A500 and A500+, with an option to fit a 68881 or 68882 co-processor (PLCC or PGA). This card can fit upto 4MB FAST RAM and is fully auto-configuring.

NOT COMPATIBLE WITH GVP HARD DRIVE

A500 68020 EC 0MB RAM . . . £99.95
A500 68020 EC 4MB RAM . . £189.95

GRAPHIC/VIDEO

PICASSO II 2MB RAM £249.95
INCLUDING TV PAINT JNR.
PICASSO II 2MB RAM £399.95
INCLUDING TV PAINT 2
VIDEO DAC £25
18-BIT GRAPHICS ADAPTOR

VGA ADAPTOR

VGA ADAPTOR £15

GLIDEPOINT

Intuitive cursor control at your finger tips ,'Tap' for an instant selection. Connects to the Serial port. (This is not a graphics tablet)

ALPS GLIDEPOINT £59.95

GENIUS TABLET

High resolution pen and cursor controlled graphic tablet, including cables and software. Power Template software includes templates for DPaint V, DPaint IV AGA, PPaint 6.4. What's more you can create your own templates using this software (for any 2.0/3.1 compliant software). When using the cursor it will emulate a 3 buttoned mouse.

GENIUS TABLET 12 X 12 . . . £195.95
INCL. PEN, CURSOR AND POWER TAB/TEMP S/W

GVP GURU-ROM V6

A SCSI driver for all Series II host adaptors and accelerator cards for all Amiga computers. Please call for further information. For GVP Only.

GURU-ROM V6 . . . . £49.95

FREE CD'S
Diggers/Oscar
Chaos Engine



POWER CD-ROM

The Power CD-ROM for the Amiga 600/1200 plugs directly into the PCMCIA port and provides a direct SCSI-I and SCSI-II interface, allowing up to six additional devices to be connected. What's more the Power CD-ROM features a 'Hot-plug' which allows you to connect and disconnect the CD-ROM and any other additional devices even when the Amiga is switched on.

The CD-ROM drive comes with a SCSI interface, PSU, manual, audio lead, mains lead and software which includes Audio CD, CD32 Emulator, MPEG Film Decoder and Photo CD.

AMIGA 600/1200

x2 SPEED CD-ROM INC.SQUIRREL . . £169
X4 SPEED CD-ROM INC.SQUIRREL . £219

AMIGA 4000

DUAL SPEED CD-ROM EXT. £139
QUAD SPEED CD-ROM EXT. . . . £199
AMIGA 4000 SCSI-INTERFACE . . £129
SCSI CABLE £10

POWER SCANNER

Scan in 24-bit at upto 200DPI (all Amigas not just AGA)*, Scan in 256 greyscales at up to 400DPI (all Amigas), Thru'port for printer connection, Fully supports AGA chipset, Display HAM8/24-bit images on a non-AGA Amiga (via image conversion), full editing facilities included. Works with 2.04 ROM or above, min 1MB (recommend 2MB).

POWER SCAN 4 B/W £89.95
POWER SCAN 4 COLOUR . . . £169.95
OCR (BOUGHT WITH SCANNER) £20
OCR SOFTWARE £49.95
POWER SCAN 4 S/W ONLY £20
PC INTERFACE + COL S/W . . . £49.95
PC INTERFACE + B/W S/W . . . £39.95

FLATBED SCANNERS

24-bit A4 flatbed scanners, complete with software, cables and manual.*

EPSON GT-5000 . . . . £479.95
24-BIT, INC. POWERSCAN SOFTWARE
EPSON GT-8500 . . . . £579.95
24-BIT, INC. POWERSCAN SOFTWARE
EPSON GT-9000 . . . . £729.95
24-BIT, INC. IMAGE FX REV. 1.5 SOFTWARE
ADPRO SOFTWARE £149.95
IMAGE FX 2.0 S/W £149.95

SCANNER SOFTWARE

FLATBED POWERSCANNER S/W . £59.95
WORKS WITH ALL EPSON FLATBED SCANNERS

AMIGA SUPERSTAR
GOLD
AWARD

68040/060

FALCON 68040RC 25MHZ . . £399.95
FALCON 68060RC 50MHZ . . £649.95
4MB SIMM £59.95
8MB SIMM £129.95
16MB SIMM £189.95
FALCON NO CPU £349.95
SCSI ADAPTOR £29.95

All Falcon's come complete with a cooling fan

VIPER 28MHZ

The Viper 28 can have up to 128MB RAM installed, full Kickstart remapping, optional SCSI-II adaptor, on-board battery backed clock, 68882 co-processor optional, instruction and data burst modes.

VIPER 28 MKII BARE £119.95
VIPER 28 MKII 2MB £159.95
VIPER 28 MKII 4MB £179.95
VIPER 28 MKII 8MB £249.95
VIPER 28 MKII 16MB £309.95
VIPER MKII SCSI ADAPTOR . . £69.95

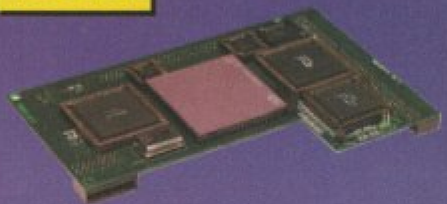
VIPER 50MHZ

The Viper 50 can have up to 128MB RAM installed, and the same features as the Viper 28.

VIPER 50 BARE £199.95
VIPER 50 2MB £229.95
VIPER 50 4MB £259.95
VIPER 50 8MB £329.95
VIPER 50 16MB £389.95

FALCON

68040RC 25MHZ
£399.99



VIPER

STARTING FROM
£119.95



CO-PROCESSOR

FPU's complete with crystal. Please state for Blizzard compatibility.

20MHZ FPU PLCC £20.95
33MHZ FPU PLCC £39.95
40MHZ FPU PLCC £60.95
50MHZ FPU PGA £79.95
VIPER MK1 SCSI-ADAPTOR . . £79.95

PC1208

A1200 8MB RAM card which uses 1 x 32 SIMMs and is PCMCIA friendly.

PC1208 BARE £55.95
PC1208 2MB £99.95
PC1208 4MB £115.95
PC1208 8MB £185.95

NAME . . . .
ADDRESS . . . .
. . . .
. . . .
. . . . .POSTCODE . . . .
TELEPHONE NO. . . . .

SYSTEM OWNED . . . .
DESCRIPTION . . . .
. . . .
. . . .
. . . .
TOTAL AMOUNT (inc. delivery) £ . . . .

CREDIT CARD NO. . . . .
EXPIRY DATE . . . . .SIGNATURE . . . .

DELIVERY 2-3 DAYS £2.50 ☐ NEXT DAY £5 ☐ SAT £10 ☐

MINIMUM DELIVERY £2.50 ALLOW UP TO 7 DAYS FOR CHEQUES TO CLEAR

TEL: 01234 273000 FAX: 01234 352207

POWER COMPUTING LTD 44A/B STANLEY ST. BEDFORD MK41 7RW
http://www.powerc.com/ email sales@powerc.demon.co.uk

POWER.

Contents

SYSTEM

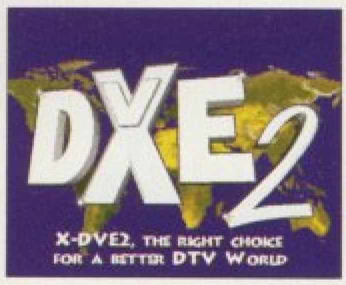
REVIEWS

FEATURES

THE COVERDISKS

X-DVE 2 DEMO

Awesome animation and video titling effects at your disposal with this exclusive demo of the latest version of this digital effects generator





TOP GEAR

As usual we delve into the depths of Aminet to bring you:

Championship Manager editor; PhotoAlbum; TinyMeter; ATAPI Device; ScreenTab; EasyPrint; Print Manager; EasyLink; FlushMem

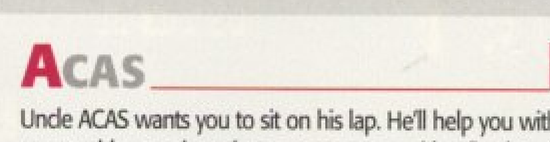
COVER STORY



NASA. *Hal Greenlee, retired NASA engineer, reports on the Amiga's long-term involvement in the American unmanned space program*

REGULARS

AMIGA GUIDE



SUBSCRIPTIONS

For details of *Amiga Computing's* subscription turn to page 70



SUMMER

CLOCK CARTRIDGE

Our unique and highly rated external Clock Cartridge will enable your Amiga to continually store the correct time and date in its own battery backed memory. Simply plugs onto the back of the Amiga and does not invalidate the warranty. Compatible with ALL Amigas



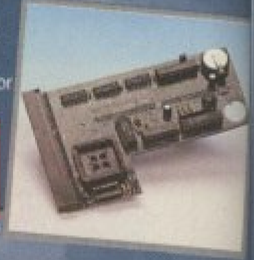
ONLY £19.99
(plus £1.00 postage and packing)

MEMORY EXPANSIONS

A1200 trapdoor fitting memory expansions feature a battery backed clock and a socket for an accelerator FPU.

2mb £99.99
4mb NOW ONLY £134.99
8mb NOW ONLY £259.99

NEARLY *DOUBLES THE* SPEED OF THE A1200



DATAFLYER SCSI+

Now includes CD ROM drivers and instructions.



The Dataflyer is a 16 bit SCSI II controller card that converts the signals on the internal IDE interface to also run SCSI devices at the same time as the IDE hard drive.

The Dataflyer SCSI+ will operate up to 5 SCSI devices such as CD-ROMS, hard drives, SyQuest removable drives, tape back up drives etc. Unlike other SCSI interfaces, the Dataflyer SCSI+ is compatible with all known accelerators etc and it does not stop you from utilising any of the important expansion ports on your A1200/A600. The Dataflyer SCSI+ easily installs into the A1200/A600 (simply pushes in, no need to remove the metal shield) and provides a 25 way D connector through the blanking plate at the back of the A1200. *Full instructions and software supplied.*

SURF SQUIRREL RRP £99.99 SALE PRICE **£89.99**

DATAFLYER SCSI+ ONLY £69.99

SQUIRREL SCSI INTERFACE
ALSO AVAILABLE £59.99
PCMCIA fitting SCSI interface

DISCOLOGY



Discology is the ultimate in disk copying power for the Amiga. The package comprises the Discology Disk, manual and Discology cartridge for making copies of heavily protected programs with an external disk drive. Discology will also format disks, check disks for errors etc.

PLEASE PHONE FOR A FULL INFORMATION SHEET

AMAZING SPECIAL OFFER

£19.99 EACH OR BUY BOTH FOR £24.99

ANTIVIRUS



Anti Virus Professional is the most powerful tool for detecting and removing viruses. Anti Virus pro will check and device hard drives, floppy disks and *even CD ROM drives* for viruses. Very straight forward to use, includes a full 50 page manual.

ORDER NOW BEFORE A VIRUS DESTROYS YOUR SYSTEM !!!

PLEASE PHONE FOR A FULL INFORMATION SHEET

EZ DRIVES



Incredibly fast (up to 4x faster than a ZIP drive) SCSI drive will store a massive 135mb per cartridge. Comes complete with power supply, SCSI cable, instructions and cartridge.

THE ULTIMATE REMOVABLE DRIVE

ONLY £199.99
or £239.99 with a Squirrel or Dataflyer
135mb EZ cartridge £15.99

SIMMS AND FPUS



40mhz 68882 FPU (plcc) £69.99
50mhz 68882 FPU (PGA) £79.99
33mhz 68882 FPU (plcc) £34.99 SALE PRICE **£29.99**

72 pin simms suitable for Apollo accelerators, A4000, A1200 memory expansions etc.
All FPU's are supplied with crystal oscilators

1mb £39.99
2mb £77.99

4mb Memory Expansion RRP £114.99 SALE PRICE **£104.99**

8mb Memory Expansion RRP £164.99 SALE PRICE **£129.99**

SPEEDCOM MODEMS

Our highly rated, top quality feature packed modems are ideal for Amiga users. All modems include our **FREE MODEM ACCESSORIES PACK (worth £19.99)** which includes a cable to connect the modem to the Amiga, NCOMM comms software, Amiga Guide to Comms and a list of Bulletin Boards from which you will be able to download vast amounts of free software as well as have access to E-MAIL facilities.



- MNP 2-4 Error Correction
- MNP 5 Data Compression
- Fax Class I and II compatible, Group 3
- Hayes Compatible
- Full 80 page manual
- 12 Months guarantee

SPEEDCOM+B (14,400 V32bits) ONLY £79.99

SPEEDCOM+BF (28,800 V34) RRP £159 SALE PRICE **£149.99**

NET AND WEB SOFTWARE RRP £39.99 SALE PRICE **£34.99**

GP FAX SOFTWARE SALE PRICE **£44.99**

ASIM CDFS 3.5

This superb package is a must for any CD-ROM user. Includes CD32 & CDTV emulation, audio CD player software including librarian features, Direct reading of 16 bit audio samples, full support for Kodak and Corel Photo CD Discs. Includes the 'FISHMARKET' CD-ROM disk packed with public domain Fred Fish disks and a huge 115 page information packed spiral bound manual.

ASIM CDFS ONLY £49.99

Sale ends 1st

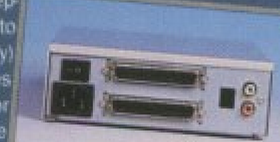
R SALE

ULTRA CD ROM DRIVE

NEW

Superb CD-ROM drive system for the A1200. Fully featured, top quality drives in a top quality enclosure with built in power supply. All cables, instructions, software etc., included for immediate use. The CD-ROM interface supply plugs inside A1200 (exceptionally easy to fit by anybody) and provides a connector in the blanking plate at the rear of the A1200, next to the mouse socket.





PLEASE PHONE FOR FURTHER DETAILS AND INFORMATION SHEET

ULTRA 4 SPEED £169.99
ULTRA 6 SPEED £219.99
ULTRA 8 SPEED £259.99

2.5" HARD DRIVES

Our high speed 2.5" IDE hard drives for the Amiga A1200 & A600 computers come complete with fitting cable, screws, partitioning software, full instructions and 12 months guarantee. All drives supplied by us are formatted, partitioned and have Workbench (WB2 for the A600 and WB3 for the A1200) installed for immediate use. Fitting is incredibly simple; if you can plug the mouse into the mouse socket, you can plug the hard drive into the hard drive socket.



PLEASE PHONE FIRST!

FREE WHILE-YOU-WAIT FITTING SERVICE FOR PERSONAL CALLERS

FREE 'HOW TO FIT YOUR HARD DRIVE' video and Stakker disk to increase the drive's capacity with every hard drive ordered

A500 Hard Drive Interface £79.99

85mb £89.99
120mb £104.99
170mb £119.99
250mb £134.99
340mb £169.99
540mb £214.99

SCSI CD ROM DRIVES

MEDIAVISION 'RENO'

Double speed CD ROM DRIVE complete with power supply, SCSI cables, docking station and full instructions. Also includes stereo headphones and carrying case for use as personal CD player.



DOUBLE SPEED CD ROM UNDER £150!!

RENO CD WITH SQUIRREL RRP £164.99 SALE PRICE **£149.99**

RENO CD WITH DATAFLYER RRP £174.99 SALE PRICE **£159.99**

QUAD SPEED CD ROM DRIVE

Amazing value quad speed external SCSI CD ROM drive in a top quality enclosure.



PANASONIC QUAD SPEED CD ROM DRIVE WITH SQUIRREL OR DATAFLYER RRP £239.99 SALE PRICE **£234.99**

APOLLO A1200 ACCELERATORS

APOLLO 1220

Amazing power for such a low price. This superb accelerator uses a 68020 running at 28hz and comes complete with a 68882 FPU to enable your A1200 to run at 5 MIPS (million instructions per second)! Uses standard 72 pin SIMMS and includes a battery backed clock.
Simple trapdoor fitting.



APOLLO 1220 ONLY £99.99

APOLLO 1220 +4mb RRP £179 SALE PRICE **£174.99**

APOLLO 1240/60

68040/68060+MMU based A1200 accelerator. Features battery backed clock and a 72 pin socket for a standard 72 pin simm (up to 128mb). Fully featured, fan cooled trapdoor fitting accelerator.



NEW

APOLLO 1240/25mhz SALE PRICE **£299.99**
APOLLO 1240/40mhz £449.99
APOLLO 1260/50mhz £574.99
1240/1260 SCSI interface £79.99
4mb SIMM £79.99
8mb SIMM £159.99
16mb SIMM £319.99

ZIP DRIVES

Highly rated SCSI drive will store 100mb per cartridge. Comes Complete with power supply, SCSI cable, instructions and cartridge.



RRP £189 SALE PRICE **£159.99**

or £199.99 with a Squirrel or Dataflyer

100mb ZIP cartridge £15.99

siren

No.1 FOR MAIL ORDER

No.1 FOR AMIGA IN MANCHESTER

Order NOW for immediate despatch

FREEPHONE 0500 340548
(credit/switch card sales only)

for enquiries

tel: 0161 796 5279

fax: 0161 796 3208

Send cheques or postal orders (made payable to Siren Software) or credit card details to:-

**SIREN SOFTWARE,
178 BURY NEW RD,
WHITEFIELD,
MANCHESTER
M45 6QF,
ENGLAND**

Access, Visa, Switch, Delta, Connect etc accepted

OPEN:

**Monday to Friday 9am to 6pm
Saturday 9am to 12pm**

Personal callers welcome.

Please phone first to check availability of any item.

DIRECTIONS:

From the M62 Junction 17 head towards Bury. We are 50 yards on the right hand side after the third set of lights. The door to our premises is next to the florists opposite the Masons Pub.

t September

All prices include VAT. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the world.

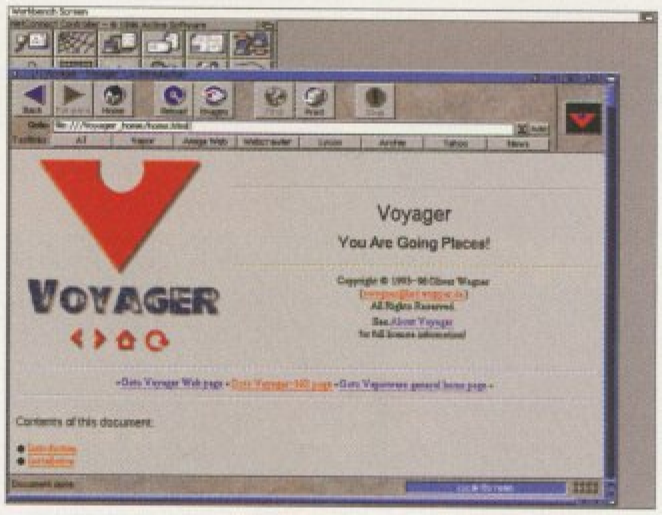
news

By **Tina Hackett**

GET YOURSELF CONNECTED

A new product called NetConnect is being released to provide Amiga users with all they need to get connected to the Internet. Priced at around £45, it will be distributed in England by Active Software and by Cross Computer Systems in Germany. It is available as either a CD or floppy disk and contains six main programs which allow even the net novice to get connected quickly. The software is commercially licensed, so the user does not need to register them.

As Active Software explained, the program does all the work for you, so all you need to do is choose your country, choose an ISP, select your local POP and type in your user details. NetConnect will also contain many Internet programs as well which include Voyager v1 Mail, PowerMail v1 FTP, mFTP v2 IRC, AmIRC v11, CLChat News and mNews v1. The CD will also have the enhanced, full version of AmiTCP 4.3 DialUP. There are package options being considered too, such as one which will include a 28.8 modem and cables which would retail at £159, and in Germany for 369DM. The product is scheduled for release mid-July and more details of deals and prices for other countries will be announced nearer to release.

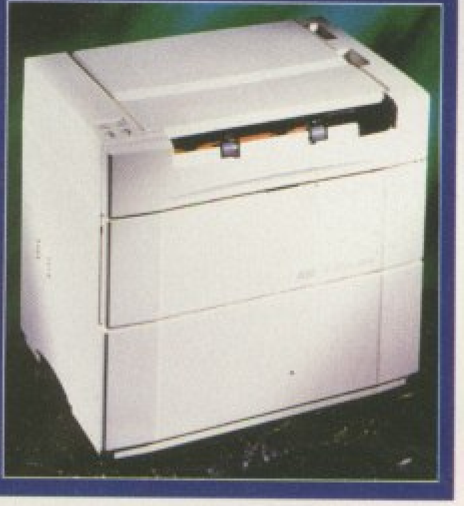


NetConnect will enable you to get onto the Internet easily

PRINTER TIME

Star Micronics, one of the world's largest printer manufacturers, is showing off its current range of printers which promise to suit all needs. Included in the range are dot matrix, laser and thermal printers.

One of the printers available is the WinType 4000 which is a low-cost Windows laser printer which produces high quality 600 dpi class output at four pages per minute. PostScript and HP LaserJet II emulation are also available as standard in this small footprint printer, which can also be used with DOS applications running under Windows. It is priced at £319 and has a running cost of 0.94p and £1.98 per page.



VISCORP REVEALS ALL

The 19 May saw VIScorp revealing its plans to an eager Amiga community. Everyone from developers, vendors, users and press gathered in Toulouse to hear what had to be said. VIScorp's CEO, Bill Buck, gave an opening speech in which he pledged commitment to the Amiga. He stated: "...we think the Amiga computer represents a valuable choice to the market place and we believe it can be a profitable business."

He laid out the companies plans of a twin set-top and desk-top business and praised the Amiga's operating system. "We think it still lives. The only multimedia and multitasking operating system in the world in our opinion." For further coverage of the conference see our report this issue on page 21.

VIDEOMASTER RELAUNCH

Eyetech has announced the relaunch of the Videomaster PCMCIA, which allows motion video and simultaneous sound capturing and editing. The Videomaster can also be used as a stereo sound 8-bit digitiser and a still frame colour digitiser.

It first appeared in 1993 courtesy of MicroDeal, and Eyetech has said that the reason for the relaunch is that when the product was first released most people with A600s and A1200s didn't have enough memory or a hard drive, which are essential for multimedia. Now, however, Eyetech believes that the situation has changed and most people have the requirements available for the Videomaster.

The complete package includes sound and video stream editing software and a utility to convert these into Anim-5 format animations. Eyetech also stresses the Videomaster's advantage of being attached via the PCMCIA port, leaving the parallel and serial ports free for the printer and modem. Contact Eyetech on 01642 713185 for more details.

Eyetech relaunches the Videomaster PCMCIA



REAL WORLD

World Construction Set, the terrain modelling and animation software, looks set to astound once again with its Version 2 follow-up.

Questar, the company behind World Construction Set, has told us that Version 2 is now available. The pre-release included a coupon for a free upgrade to the final version.

The company has pledged continued support to the Amiga and it says that although World Construction Set is being converted to other platforms, Amiga users get it first and cheaper than other platforms.

Version 2 has plenty of new features including 3D evolving clouds, 3D shaded bitmap trees, and highly realistic ground textures. More water options have also been developed such as accurate reflections. Check out its Web site for the latest at: http://www.dimensional.com/~questar



TREACHEROUS TECHIE

The unfortunate (ahem) news this month is that our much loved editor, Ben Vost, has left us for pastures new. He disappeared six weeks ago leaving a note to say that he had gone trainspotting. Allegedly, though he had become increasingly concerned about his missing budgie and set out to find it.

Since leaving, we have discovered a large hole under his desk where he had been tunnelling his way out. He was last seen in the Bath area. Police have warned that anyone who sees Vost should not approach him as he is very, very smelly.

New and much better looking editor Tina Hackett commented yesterday on his leaving. She remarked: "Bin Vest will be sadly missed by his colleagues, but not as much as the mangy dog, Scamp, who sat fondly under his desk."

MOUSE MATTERS

Legendary Design Technologies, the American company behind the program Link It!, has a solution available if your Amiga mouse packs in. Called the AmiPC Power Mouse, it allows a standard PC serial mouse to be used on an Amiga. The AmiPC Power Mouse requires AmigaDOS 2.0 or higher and works with almost every Amiga application. It also provides an emergency program which you can use if your mouse breaks.

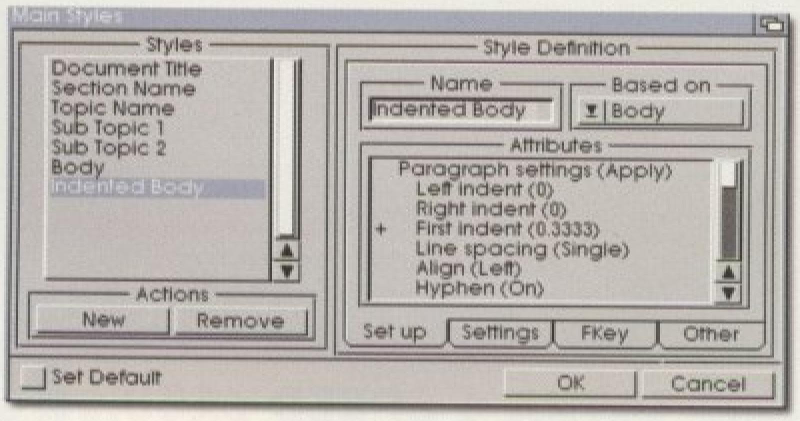
You can buy either the software which retails at $14.95 or the AmiPC Power Mouse with a standard serial mouse and adapter for $24.95. Also on offer is the Microsoft "J" mouse and adapter for $49.95. For more information e-mail the company at legend@io.org

OOPS

Apologies to Parth Galen for a mistake we made in our review of its SofTalk speech synthesis programs. The SofTalk product itself sells for $7.50 and not $35 which we quoted. We apologise for any inconvenience caused.

WRITE STUFF

Final Writer 5 is almost ready for release courtesy of SoftWood. The latest version will feature many enhancements which are intended to create a more useful and user-friendly program. There are 23 new features which include a useful HTML export, Datatype support for imported graphics, AutoCorrect and tables.



Also from SoftWood is its new Web page service which offers users the chance to publish their own Web page on SoftWood's server. SoftWood will put your site up for 12 months and all you need to do is give them a Final Writer Document and any graphics or links you want to use. You can also modify your site once a year and post your e-mail address on the site.

Prices vary and to buy Final Writer on its own will cost £74.95. However, for owners of other SoftWood products it is priced at £39.95 and upgrading from Final Writer 4 is £22.95. For the personal Web Site subscription you will need to add £35.

Contact SoftWood Products Europe on 001 773 836 781 for more information.

news snippets

ON SAFARI

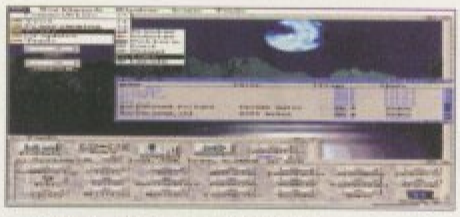
EM Computergraphic has announced that it will not be going into full production of the Safari Font CD due to other CD development. Instead it will be releasing a limited addition Gold Disc Safari Font CD which contains the complete set of StarFonts, Mathematical Symbols fonts and two sets of Egyptian Hieroglyphics fonts. It is available now for £39.99 + postage and packing and all the fonts come in Compugraphic, Adobe Type 1, Truetype and Amiga Bitmap formats. Call quickly on 01255 431389 as it's first come, first served!

MONITORS R US

Hitachi has just launched its new 17 inch monitor, called the 17MVX-V2. This has an on-screen display and a 0.23mm horizontal mask pitch. Priced at £549, it offers flicker free images to at least 75Hz for resolutions from 640x480 up to 1,024x768. There are many controls which include brightness, contrast, side pincushion and RGB colour control.

BENCHMARK

A new replacement for Workbench has been released this month. Called MBench, it has the advantage over workbench in that it can do everything workbench can do, but also means you don't have to wait around for icon loading or copying files. Compatible with all Amigas running OS2.04+, it includes a full ARexx port which allows easy expansion and progress requesters, which means you can cancel or see the progress of copy and delete processes. Contact Mark Hewitt for more details (M.A.Hewitt@exeter.ac.uk

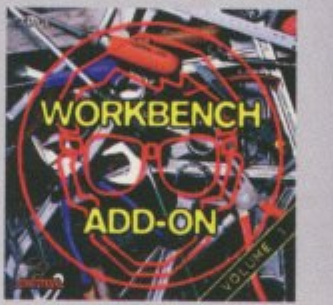


MBench – the new multi-tasking replacement for workbench

FIRSTNET ISP

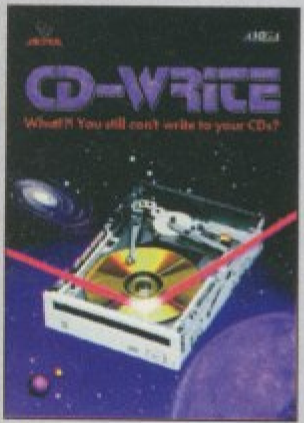
A new Northern Internet Service Provider called Firstnet has announced a service which offers Internet access with a low modem-to-user ratio and wide bandwidth. It has a dial-up rate of £12.50 + VAT per month for unlimited access and customers who already have a subscription with a different ISP can take advantage of the one off set-up fee of £25 +VAT. As well as its Web homepage, Firstnet also offers WWW authoring, LAN and WAN installations and mail-to-desk solutions. Its Web site is at http://www.firstnet.co.uk and you can contact by phone on 0113 294 4224.

D-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM



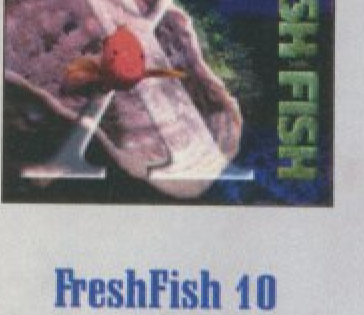
Workbench Add-On Volume 1

The Workbench Add-On CD-ROM is the ideal companion to your workbench. On this CD you will not only find the best programs, that are available for the Amiga, but you will also get them ready-to-run from the CD. In addition to this there is an installer script that installs the desired programs to your harddisk.
The CD covers all areas of interest, all, the programmer, the user, the creative and the gamer will find what they are looking for. On this CD-ROM there are many shareware programs, some of them at a special price, if you get registered. There is e.g. Shapeshifter for 40.- DM (instead of 50.- DM), in addition to this there is a 50 MB Mac partition, so that you can start playing around with Mac applications right away. Then there is PowerPlayer for 20.- DM (instead of 30.- DM), there are, of course, loads of modules with it, so that you can try it right away. AmiWin, the new X11-server for the Amiga is available for $40, instead of $50. You can sa ve more than 100.- DM with this CD. Therefore you only have to send in the appropriate page in the booklet to the author of the program. £24.95



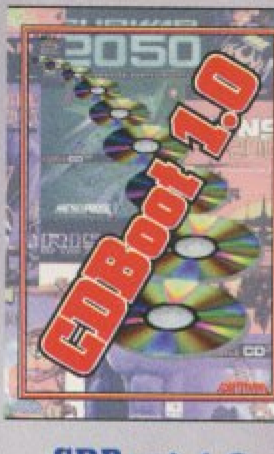
CD-Write

What!?! You still can't write to your CDs? CD-ROMs have long been an essential part of Amiga computing. Many users already own a CD-ROM drive, and the number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Ossowski's Schatztruhe are proud to present what can be considered a marvel of technology. CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. £44.95



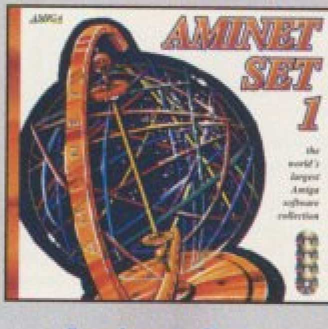
FreshFish 10

The FreshFish CD-ROM-series, produced directly by Fred Fish, provides Amiga users with hundreds of megabytes of the latest freely redistributable software. Published approximately every two months, each volume is a two CD set containing new submissions since the latest volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £17.95



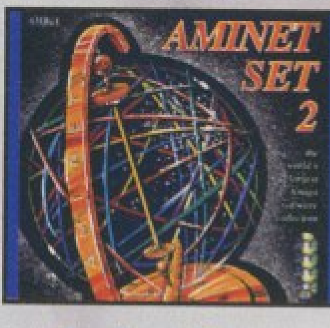
CDBoot 1.0

CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT- or SCSI-CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-freaks, who would like to enter the world of CD32 games! £34.95



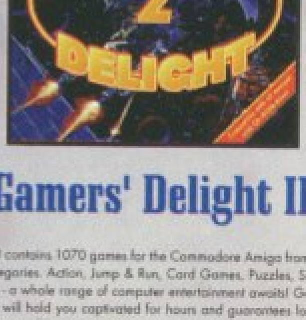
Aminet Set 1

Aminet is the world's largest collection of freely distributable Amiga software. Up to 10.000 users access the vast archives ervery day and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12.500 archives and you will enjoy the comfortable user-interface. £29.95



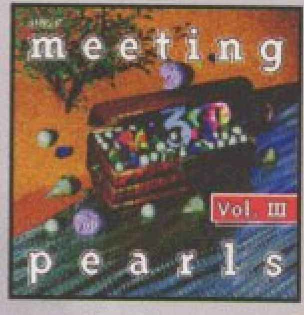
Aminet Set 2

AMINET SET 2, dated November 1995, consists of approximately 4 gigabytes of software in 12.000 archives. Whether you like applications, games, communications or programming, the SET gives you all you need. Easy to use index files and search facilities make accessing it a pleasure. £34.95



Gamers' Delight II

This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive,1 MB free memory and Joystick/JoypBd. £26.95



Meeting Pearls Vol. III

The Meeting Pearls Volume III contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs · 3 MB CD-ROM Utilities · 21 MB Communication and Network Programs · 5 MB Debugging Tools · 29 MB Development Tools · 13 MB Floppy, Hard Disk ans SCSI Programs · 8 MB Educational Programs · 9 MB Games · 35 MB Graphics Programs · 39 MB Internet Movie Database, Updated Version · 7 MB Midi Tools and Programs · 27 MB Mods · 12 MB Music Programs · 21 MB Pictures · 13 MB AmiTCP and more for Networking · 60 MB Documentation, CD-ROM Databases, etc. · 96 MB PasTeX 1.4 · not previous available on any CD-ROM · 15 MB Utilities · 30 MB HTML-Pages · Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. £9.95



Aminet 11

Still available! £14.95



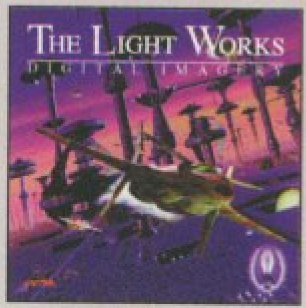
Aminet 12

Aminet CD 12, dated June 1996, consists of approximately 1,1 gigabytes of software in 3800 archives. Since the release of Aminet CD 11 more than 710 MB new software has appeared. The current edition has a special focus on mods, more than 1000 music-modules from the internet were included. User friendly access software makes the Aminet CD 12 a pleasure to use. £14.95



XiPaint V4

XiPaint 4 is the new version of the leading edge, 24-bit paint program. It's suited to the demands of novice and expert alike, and within a short time, you too will be able to produce colourful and creative art in 16.8 million colours. This version of XiPaint features animations as well as easy-to-use raytracing-capabilities.
Overview of Features: · Diverse paint functions including colour, contrast and saturation adjustment · Mask, outline, recolour and fill functions · Airbrush with adjustable spray functions · Light-table function for manipulating montages and animations · Text functions with anti-aliasing using Compugraphic fonts · Support for a variety of graphic formats · Unlimited Undo · Diverse manipulation of alpha channel · Supports many graphic cards · Layers to combine different projects · ARexx port · Drag & Drop colours · External filter module · Extensive documentation · 60 textures, 50 landscapes, 30 other pictures and many fonts included. £49.95



The Light Works

Raytracing - A fascinating area of the computer graphics. Pictures from the computer, perfectly rendered, fascinate people all over the world. The Amiga was the first computer to be used for raytracing, and today it is still a leader, with many high quality programs. A real artist of raytracing is Tobias J. Richter from Cologne/Germany, whose detailed objects stun the people. Especially his space ships of famous science fiction films are used to demonstrate the capabilities of a raytracing program. The objects are highly detailed and extremly realistic due to the application of complex surface textures of the models. Until now it was difficult to acquire these objects in order to create ones own scenes or animations. £29.95



NetNews Offline Vol. 1

NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amiga-related newsgroups from the internet. Every volume features about 50.000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. £14.95

All products are available in your local Amiga-shop or through national mail-order-companies

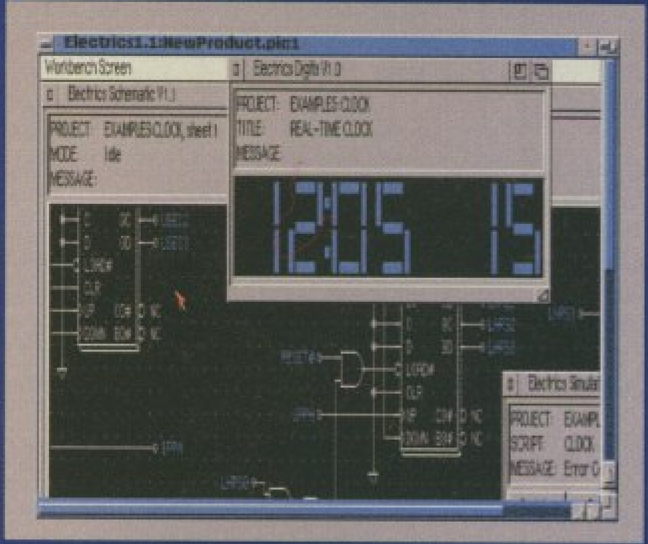
SCHATZTRUHE

International Distributor:

GTI

GTI
Grenville Trading International GmbH
Zimmersmühlenweg 73
61440 Oberursel · Germany
Tel +49-6171-85937
Fax +49-6171-8302
EMail: Compuserve 100336,1245

ELECTRIC DESIGNS



The commercial version of Electrics Digital Designer Version 1.1 is now available. The original Electrics Version 1.0 was released as Shareware and is still available from PD houses and AmiNet in the *misc/sci* directory. Electrics allows you to design and simulate digital electronic circuits. The user can draw the circuit to be tested using simple and complex gates. According to Chris Sterne, author of the program, multiple logic levels and drive strengths permit realistic circuit behaviour during simulation. The program costs £19.95 and requires Workbench 2.0 or greater. It is available from Chris Sterne, 1111 West 7th Ave, Vancouver, British Columbia, Canada V6H 1B5.

MILLER PURCHASE

May 21 saw Miller Freeman Inc purchase the publications and conferences of AMG Media, Inc. whose properties include the three magazines Video Toaster User, LIGHTWAVEPRO, and Alpha Visual FX, as well as the Video Toaster User Expo and Video Toaster and LightWave 3D training conferences.

Pat Cameron, the Vice President of Miller Freeman's newly formed Entertainment Technology Group said: "These magazines are high quality, targeted editorial products and represent a unique opportunity to increase our presence in the rapidly expanding digital video and 3D animation markets."

AMG Media founder and CEO, Jim Plant, has been kept on by Miller Freeman as a consultant. The rest of the AMG Media staff will join Miller Freeman's Entertainment Technology Group which now includes nine publications.

ATS JOHN SMITH RESIGNS

The recent news from the Amiga Technologies UK headquarters is that the last remaining employee has resigned. The last few months has seen the six-strong UK team dwindle with the departure of Jonathan Anderson and other staff during the move from the Maidenhead offices to the Escom HQ in Stanstead.

John Smith has solely kept the UK operation running but leaves the company on 10 June. This casts doubts on the future of the UK offices which now look likely to close completely. Smith leaves AT to become UK general manager for PIOS Computer, a company whose team includes several personnel who have strong links with the Amiga (see US News for more details).

news from the net

NERDS NO MORE

A recent survey by London company, Consumer Surveys, has disproved the myth at long last that not all Net users are nerds. After carrying out a survey on more than one million people in the UK, they have found that 4 per cent of the population are connected, with a further 8 per cent considering going online soon. It also stated that those online are more likely to be high-earning company directors than the stereotypical spotty teenager. It found that 69 per cent of users are male and 31 per cent female, and that 57 per cent are in the age range of 31-50. It was also revealed that there are a wide range of interests from science to art and the National Lottery.



According to new research carried out by Consumer Surveys, those online are more likely to be high-earning company directors than spotty, pizza-and-lager-guzzling teenagers

VISIONS OF THE FUTURE

If you want to see what the future has in store then pop along to Granada Studio's latest attraction, Futurevision. Down amongst the shrines to Coronation Street such as the Rovers Return, you can explore the home of the future such as home shopping and surfing the Internet. Sponsored by IDG and ICL, you can try out live video-conferencing and visit the CyberCafe.

The *AC* team

EDITOR	Tina Hackett
ART EDITOR	Tym Leckey
COVERDISK EDITOR	Neil Mohr
PRODUCTION EDITOR	Judith Chapman
STAFF WRITER	Andrew Maddock
EDITORIAL ASSISTANT	Gary Russell
REGULAR CONTRIBUTORS	Dave Cusick, Paul Overaa, Phil South, Steve White
ADVERTISING MANAGER	Lisa Bracewell
AD SALES	Jane Normington
AD SALES	Sue Horsefield
AD PRODUCTION	Barbara Newall
DATABASE MANAGER	Victoria Quin-Harkin
MARKETING MANAGER	Steve Tagger
PRODUCTION MANAGER	Sandra Childs
SYSTEMS MANAGER	David Stewart
CIRCULATION DIRECTOR	David Wren
COMMERCIAL DIRECTOR	Denise Wright
DISTRIBUTION	COMAG (01895) 444055
SUBSCRIPTION	0151-357 2961

Member of the Audit Bureau of Circulations

ABC 39,802

June-Dec 1995

Published by IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP

Tel: 01625 878888, Fax: 01625 850652

EMail contacts:
Editorial edit@acomp.demon.co.uk
Advertising ads@acomp.demon.co.uk

CHAIRMAN	Richard Hease
MANAGING DIRECTOR	Ian Bloomfield

We regret *Amiga Computing* cannot offer technical help on a personal basis either by telephone or in writing. All reader enquries should be submitted to the address in this panel for possible publication.

Amiga Computing *is an independent publication and VIScorp id not responsible for any of the articles in this issue or for any of the opinions expressed.*

IDG MEDIA

For eight years *Amiga Computing* has been the leading magazine for Amiga enthusiasts. As a key member of the IDG communications group, *Amiga Computing* promises to inform, educate and entertain its readers each month with the most dedicated coverage of the Amiga available.

12 issue subscription £49.99 (UK), £69.99 (EEC) £84.99 (World)
Ongoing quarterly direct debit: £10.99 (UK only)

Printed and bound by Duncan Webb Offset (Maidstone) Ltd

DISTANT SUNS 5.01
DESKTOP PLANETARIUM
CD-ROM

Your Spaceship Awaits!

- 1500 16 color & 256 color IFF images
- Megabytes of 16 color & 256 color anims
- 16 million star Hubble Catalog
- 3-D planet rendering
- View images in 256 colors on AGA capable Amigas
- Display night sky from 4713 BC to 10,000 AD
- Add your own comet and asteroid data
- Comet Hyakutake and Hale-Bopp data included

AmigaDOS 2.04 or newer, 2 megs RAM & hard disk required. NTSC and PAL versions available.
List Price $99.95 – *Special – mention this ad – $79.95*
Call for upgrade prices

GeoMorph 1.00

Create animations where the landsape, trees, clouds, and colors change before your eyes. Morph landscapes! Grow trees! Change seasons! Create moving clouds! Multiple morphs in single script!

Requires VistaPro 3.0 or newer. AmigaDOS 2.04 or newer, 2 megs RAM & hard disk required.
List Price $69.95 – *Special – mention this ad – $39.95*

SIGH-Light 5.4

Forget to spring forward or fall back? Let SIGH-Light do it for you! Can be set for America, UK or Europe. Adjusts your Amiga clock for Standard or Daylight Savings Time.

Requires an Amiga Computer with a working clock.
List Price $29.95 – *Special – mention this ad – $19.95*

VistaLite 3.0

Want to make beautiful landscapes like VistaPro but don't have the memory? Try VistaLite! Render fly-by animations of your favorite places. Supports 256 color and HAM-8 AGA modes. Contains Altitude Texture, Clouds, 3-D trees. Reads MakePath scripts and builds VANIM animations. VANIM viewer included.

Requires 2 megs of RAM and Workbench 2.04 or newer.
Reduced List Price $24.95! Special with this ad – $14.95!

Chaocity

representing – *Virtual Reality Laboratories* – Amiga
221 Town Center West #259
Santa Maria, CA 93454 USA
(805) 925-7732 (voice) (805) 928-3128 (FAX)
Internet email 75300.3706@compuserve.com

Visa, Mastercard, Discover, AMEX welcome.
Call or write for free newsletter

Dealer inquiries invited

FREE GAMES CHEATS **FREE** 1.4 EMULATOR ON ALL ORDERS

P UNDERGROUND D

FREE LIBRARY DISK **FREE** POST & PACK ON ALL ORDERS

PLATFORM GAMES
- 1218 TRAP-EM NO 1.3
- 1322 NICKY 2 NO 1.3
- 1418 GUNNY GOO
- 1444 SEAMORE DOOLIE
- 1448 MORPHING GAME
- 1461 CHARLIE COOL
- 1521 HAPPY MONSTER
- 1522 JIMMYS A1200

SPACE BLASTERS
- 1083 DE-GALAGA 2.5
- 1434 SPACE BLASTER
- 1469 ALIEN SHOOTOUT
- 1473 EXENEX – ROIDS
- 1478 PHANTOM DEFEND
- 1551 REBELLION
- 911 SOLO ASSAULT

ARCADE GAMES
- 1168 S-TANKS V185
- 1316 FRACAS (ED 209)
- 1319 PEPSI NOT 1.3
- 1326 GEEK! GEEK!
- 1330 CAPTAIN BONUS
- 1338 STRIKE COMMAND
- 1363 PUNICA
- 1368 ALIENS F.F.
- 1374 A12 MARATHON
- 1445 10 C.W. GAMES
- 1451 NIBLER NIBLET
- 1468 SNAIL RACERS
- 1470 A12 H/BALLOONS
- 1500 24 UPD GAMES
- 1502 SNEECH V1.5
- 1523 A12 GLADIATORS
- 1525 GUNFIGHTERS

P.D. VERSIONS
- 024 ELF & PP HAMMER
- 025 HUNTER PLUS
- 022 GODS-T/MACHINE
- 026 ROBOCOP-T/RECALL
- 027 CHUCK ROCK-ICE
- 815 LEMMINGS PACK
- 1443 DAN DARE V3
- 1457 TI-FIGHTER
- 1501 A1200 PENGUINS

COMBAT GAMES
- 290 FIGHT WARRIORS
- 492 KARATE WARRIORS
- 941 FATAL BLOWS
- 1238 WEAPON MASTER
- 1428 3DSK CYBERFIGHT
- 1545 ROCKO V DRUGGO
- 1548 FIGHT A1200

CLASSIC GAMES
- 011 ASTEROIDS
- 225 BOMBJACKY
- 308 DONKEY KONG
- 692 SPACE INVADERS
- 693 MISSILE COMMAND

DRIVING GAMES
- 951 FLAMING ENGINES
- 1072 SUPER-DRIVE
- 1132 A12 LAST LAP
- 1336 A12 AUTOS 2DSK
- 1417 M-FENDERS V2
- 1466 KNOCKOUT NO1.3

SIMULATORS
- 332 SEALANCE-SUB
- 333 BATTLE CARS V2
- 544 AIR WARRIOR
- 811 CAR MANIACS
- 926 HELICOPTER
- 1273 A12 TRAIN DRIVER
- 1524 A12 COALA DEMO

SPORTS GAMES
- 366 GOLF 18TH 2 DISK
- 630 TEN PIN BOWLING
- 822 CRICKET AMOS V2
- 1014 CRAZY GOLF
- 1171 2 DSK C. ANGLER
- 1247 SOCCER NOT 1.3
- 1251 TOUR TENNIS
- 1317 A12 GON FISH'N
- 1329 AMOS BASEBALL
- 1373 ICE HOCKEY
- 1465 2DK A12 TENNIS

HINTS & CHEATS
- 418 1000 CHEATS
- 931 BACKDOOR V3
- 821 PASSWORD MANIA
- 681 SIERRA SOLUTIONS
- 1118 UP TO DATE V1
- 1358 NEW SOLUTIONS
- 1462 SOLUTIONS V2

OVER 18 GAMES
- 1001 2DSK ADVENT 2
- 1081 ADULT TETRIS
- 1145 NUMBERS A1200
- 1307 TERRORLINER V3
- 1328 ADULT JIGSAWS
- 1335 ADULT DROIDS
- 1514 STRIP SLOTTER
- 1517 ADULT BOMBER
- 1533 DRAGONS BALL

TETRIS - COLUMNS
- 013 TET-TREN TETRIS
- 107 TWIN-TRIS TETRIS
- 293 DR-MARIO COLMS
- 294 KLACK-TRIS COLMS
- 390 DIZZY DIAMONDS
- 626 MEGA-BLOX TETRIS
- 1215 A1200 BLIT-TRIS

PAC-MAN GAMES
- 230 SUPER PAC MAN
- 397 DELUXE PAC MAN
- 1070 PLAT-MAN
- 1096 PUC-MAN

BREAK-OUT & PONG
- 003 MEGABALL V1
- 007 BATTLE PONG
- 421 REBOUNDER PONG
- 459 MEGABALL V2
- 559 MEGABALL V3
- 1459 CYBER BREAKER

BOULDERDASH GAMES
- 121 MARATHON MINES
- 254 EMERALD MINES
- 351 ROYAL MINES
- 391 DIZZY LIZZY MINES
- 480 BLUE DIAMONDS
- 731 HAUNTED MINES
- 1423 MINE TRASHERS
- 1527 ICE MINE PRO
- 1528 MORE YAMS V2
- 1529 MORE YAMS V1

PUB-CLUB GAMES
- 222 FRUIT MACHINE
- 375 CARDS SOLITAIRE
- 560 WORLD DARTS
- 598 PINBALL FLIP
- 734 POOL-BILLIARDS
- 932 MEGA FRUITS
- 1073 CARD PACK
- 1112 A12 CARDS V3
- 1190 2DSK HOT HANDS
- 1246 CRIBBAGE CARDS
- 1362 PUB DARTS
- 1450 SNOOKER NIGHT

BOARD GAMES
- 032 MONOPOLY USA
- 296 RISK (GLOBE-WAR)
- 476 CHESS GAMES
- 631 SCRABBLE
- 910 NEW MONOPOLY
- 1304 CHECKERS V2
- 1433 LIFTS & LADDERS

ADVENTURE GAMES
- 297 NEIGHBOURS 2 DISK
- 116 STAR TREK 2 DISK
- 1209 THE LOST PRINCE
- 1359 A12 ALIEN SPACE
- 1425 ELDRITCH NO 1.3
- 1431 UFO UNCLOTHED
- 1503 4DSK A.N.G.S.T.
- 1526 2DSK MAD-H A12

STRATEGY GAMES
- 967 COL-CON V2 NOT 1.3
- 1170 2DSK A12 LORDS
- 1347 BATTLE AT SEA
- 1432 ULTIMAS NO 1.3
- 1452 A12 INTERMERCS
- 1547 SOLO STAR-TREK

PUZZLER GAMES
- 859 10 PUZZLE GAMES
- 914 JINX A1200 2 DISK
- 953 CHANEQUE 2 DISK
- 1066 MINDBENDERS V1
- 1211 GEMZ GAME
- 1236 SHUFFLE NOT 1.3
- 1424 PING-WIN NO 1.3
- 1463 FULL SCHNEBITZ
- 1550 PUZZLE PITS V2

MANAGER GAMES
- 321 AIRPORT
- 322 MICRO MARKET
- 404 METROS MANAGER
- 868 THE SUPER LEAGUE
- 876 SCOTTISH LEAGUE
- 1429 ULTIMATE MANAGER

QUIZ GAMES
- 309 THE QUIZ MASTER
- 462 WHEEL OF FORTUNE
- 716 POP MUSIC QUIZ
- 1031 TREK QUIZ 5 DISK

LOGIC GAMES
- 112 DRAGON'S CAVE
- 119 DRAGON'S TILES
- 323 OXYD LOGIC
- 603 EXIT 13
- 1037 MARBLES GAME
- 1369 BOOMIN' ECK!
- 1412 OOZE! NOT 1.3
- 1476 MARBEL-LOUS
- 1477 BOMB MANIACS
- 1513 2DSK T/TRACKS
- 1546 CROSS BALLS

AMIGA LEISURE
- 205 AMIGA PUNTER
- 1210 LOTTO LUNACY
- 1262 LOTTERY PRO A12
- 1438 AGENE VERSION 5
- 1557 2 DISK ORACLE

A1200 MEGADEMOS
- 1193 LEMMINGS
- 1204 INTROS VI
- 1220 JAMMIN A12
- 1270 DOOM RAVE A12
- 1274 CONTROL 2 DISK
- 1285 INTROS V2
- 1302 AGA DUNGEONS
- 1414 2 DISK DOVE!
- 1415 MYSTIC ILEX
- 1439 BLOWING BRAIN
- 1454 AVALON RESPONSE
- 1456 TAZ INTROS V4
- 1544 2DSK OXYGENE V3

AMIGA MEGADEMOS
- 430 2 DISK DATA X
- 460 TEKNO RAVE
- 979 PREACHER NOT 1.3
- 1105 OXYGENE V1
- 1120 2DSK TAZ-QUEEN 2

A1200 SLIDE SHOWS
- 740 4 DISK MANGA
- 1040 3DKS AGA GIRLS
- 1271 PIXEL STORMS
- 1280 ERIKA N GLAMOUR
- 1287 FAST JETS NOT 1.3
- 1436 2DSK P. ANDERSON

AMIGA SLIDE SHOWS
- 061 PAT NAGEL'S GIRLS
- 704 REVELATIONS
- 936 AVIATION HISTORY
- 1060 3DSK LION KING
- 1107 5DSK BOLDLY GO
- 1117 2DSK TREK GUIDE
- 1472 YABA DABA DO
- 1498 NIGEL MANSELL

ARTWORK PACKAGE
- 349 SPECTRA COLOUR
- 465 KIDS PAINT
- 561 ARTISTIX
- 664 FUSION PAINT
- 748 ILLUSION PAINT
- 1301 SPLATTER PAINT
- 1460 A-Z PAINT PAD

ARTWORK PROGRAMS
- 070 GRAPHIC UTILS
- 071 GRAPHICS CON KIT
- 133 FRAC LAND BUILD
- 1195 IMAGE DESK A1200
- 1299 A12 MAGNIFI CAD

ANIMATIONS
- 080 VIRTUAL WORLDS
- 084 PUGGS IN SPACE
- 233 COOL COUGAR
- 271 NEWTEK V2 2 DISK
- 347 NEWTEK V3 2 DISK
- 463 MR POTATO HEAD
- 831 RED DWARF
- 865 TAROT MASTER 2 DISK
- 1302 AGA DUNGEONS
- 1422 2DISK NAVIGATOR
- 1447 2 DISK JAP MANGA
- 1449 BATMAN V JOKER

AMIGA VIDEO
- 148 S - MOOVIE
- 329 VIDEO INSCRIPT
- 790 VIDEOTRACKER 5 DISK

MUSIC MAKERS
- 220 FUNK KEYBOARDS
- 431 RAVE KEYBOARDS
- 618 MUSIC DATABASE
- 661 MED WORKSHOP 4DISK
- 729 DRUM MACHINE
- 787 SONIC DRUM KIT
- 866 OCTAMED TUTOR
- 981 AUDIO ENGINEER
- 1099 QUADRAPLAYER
- 1268 HIPPO PLAYER
- 1291 OCTAMED PRO 4
- 1435 PROTRACKER 2.3

CLASSIC – POP
- 201 PIANO CLASSICS
- 234 VIVALDI 2 DISK
- 342 AMIGA-DEUS
- 1088 MELLOW CD MIX
- 1147 CD JUKE BOX
- 1375 2 MEG DACO V1
- 1453 MYSTITY MUSIC

SAMPLES – MODS
- 206 SELECTION 7 DISK
- 218 HOUSE 2 DISK
- 619 DRUMS 2 DISK
- 647 SOUND FX 3 DISK
- 660 KORG 01W 8 DISK
- 1539 TAZ DRUM V2
- 1541 S-TREK SAMPLES
- 1543 HOUSE SAMPLES

AMIGA EMULATION
- 313 V1.3 TO V2.0
- 327 ACTION REPLAY
- 378 A600 NUMBER PAD
- 414 V2.0 TO V3.0
- 423 2 DISK SPECTRUM
- 719 4DKS C64 + GAMES
- 889 PC EM 2 DISK
- 891 B.B.C. MICRO
- 955 V3-V2 TO V1.3

DISK COPIERS
- 158 X.COPY PRO
- 325 LOCKPICKER V2
- 357 COPY AND CRACK
- 380 NIBBLER (NIB)
- 416 MAVERICK V5
- 727 MULTI TASK (MT)
- 1252 LOCKPICKER V1

HARD DRIVERS
- 490 8 DISK MAGIC WB
- 501 R/D PREP A1200
- 533 H/D SUPERLOCK
- 621 H/D STACKER
- 665 MR BACK UP PRO
- 779 W/B 3 INSTALL
- 780 W/B 2 INSTALL
- 1199 GAME INSTALL V4

PRINTING
- 048 PRINTING STUDIO
- 057 TEXT ENGINE V4
- 065 AMIGA FONT 7 DISK
- 100 PRINTER DRIVERS
- 243 AWARD MAKER 4DSK
- 345 BANNER MAKER
- 393 LABEL DESIGNER
- 394 INVOICE PRINT
- 749 FORM PRINTER
- 1464 DIARY 2000

AMIGA BUSINESS
- 092 ACCOUNT MASTER
- 240 ADDRESS BOOK
- 244 SPREADSHEET
- 470 LITTLE OFFICE
- 535 UK S.T.D. CODES
- 691 DAILY DIARY
- 832 DATABASES 2 DISK
- 1561 MONEYPROG NO 1.3

COLOUR CLIP ART
- 633 7 DISK CLIP ART
- 637 6 DISK COL/BRUSH
- 901 9 DISK WORLD MAP

MONO CLIP ART
- 172 15 DISK PORTFOLIO
- 558 7 DISK CLIP ART

AMIGA MODEM
- 413 N. COMMS V3
- 690 TERM 2 DISK
- 801 DMS PRO
- 1196 3DSK TERM A1200
- 1562 EASY DISK MASHER

PROGRAMMERS
- 288 A-BASIC TUTOR
- 481 ABOUT AREXX
- 722 TONS OF AMOS
- 1034 DION AGA TOOLS
- 1067 AGA DATATYPES

DO IT YOURSELF
- 239 SLIDESHOW MAKER
- 242 MENU MAKER
- 381 ADVENTURE MAKER
- 585 2 DISK PARNET
- 808 MAKE A DISK
- 1181 M.U.I. NOT 1.3
- 1282 PSUITE MAGAZINE
- 1560 FAST INTRO MAKER

VIRUS CONTROL
- 160 M.V.K. PLUS
- 506 A1200 VIRUS
- 1183 2DSK VIRUS DATA

AMIGA UTILITIES
- 612 4 DSK TOOL KIT
- 1076 AGA TOOL-BOX

DISK & SYSTEM
- 166 SYSTEM TESTER
- 168 HARDWARE MANUAL
- 194 DISK OPTIMISE
- 245 FIX DISK
- 467 FILE UNDELETE

AMIGA EDUCATION
- 059 AMIGA TUTORIAL
- 270 PLANETS 6 DISK
- 304 ENGINES 5 DISK
- 486 LANGUAGES 4 DISK
- 532 MATHS 5 DISKS
- 644 ENGLISH 4 DISK
- 766 GEOGRAPHY
- 1123 WORLD HISTORY
- 1125 2DKS GLOBE FACTS
- 1200 THE TYPING DEMON
- 1361 2 DISK INTERNET

DISKS COST £1.25 EACH, NO MINIMUM ORDER, ALL VIRUS FREE AND USER FRIENDLY
All Games are on 1 disk and run on all Amigas unless otherwise stated.
PICK AN EXTRA DISK FOR FREE WITH EVERY EIGHT DISKS YOU PURCHASE

UNDERGROUND P.D., 54 CARMANIA CLOSE, SHOEBURYNESS, ESSEX SS3 9YZ. Tel: 01702 295887

Name: .... Amiga Model: ....
Address ....
.... Postcode: ....

Oregon scrambles for Termite

USA news

by **Jason Compton**

As you read this, Oregon Research should be frantically shipping its Termite TCP package out the door. In early June, the company took its order and information lines off the hook to dedicate 100 per cent of its resources to the completion of the project.

Termite TCP is a full-featured TCP/IP networking stack for Amiga computers, promising the ability to create local networks of Amigas and other computers, as well as allowing users to connect to Internet service providers and access the wealth of information available online. It also promises compatibility with AmiTCP network applications. AmiTCP has become one of the most prominent network packages for the Amiga, and the majority of new networking tools are designed to its standards.

As a companion piece, Oregon Research will soon ship iBrowse, the high-powered World Wide Web browser developed by Omnipresence International and published by HiSoft.

Contact Oregon Research by phone on (001) 503-620-4919, or e-mail orres@teleport.com.

VISCORP DIRECTORS ON BOARD

VIScorp has added three new directors to its board of trustees. The addition of Robert J Wussler, King R Lee, and Robert E Reid brings the VIScorp board to six members, joining the company's chairman, founder, and CEO.

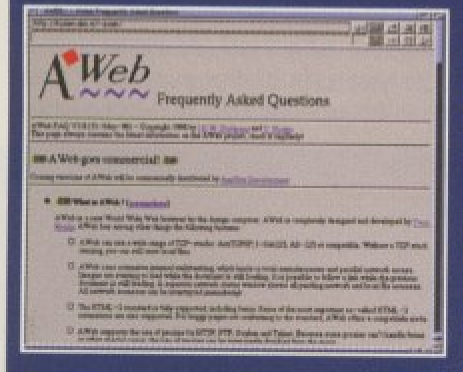
Mr Wussler is an experienced figure in the world of television, having served as a top executive in two major American broadcast corporations. He is described by Chairman Jerry Greenberg as having "a deep understanding of technologies such as satellite communications, cable television, and interactive media."

Mr Lee's background is rooted in the computer industry, having served as CEO of XTree Company and, more recently, Quarterdeck Corporation, two noted producers of PC software. Currently, he serves as CEO of Wynd Communications Corp., which was founded by him to be a two-way wireless messaging service provider.

Mr Reid is President and CEO of Engis Corporation, which produces precision diamond industrial products. His experience with worldwide licensing and manufacturing processes are expected to prove very helpful to VIScorp in the future.

For more information, contact VIScorp on (001) 312-655-0903,or http://www.vistv.com online.

AMITRIX TAKES ON AWEBB-II



The new version of AWeb will help you create Web pages

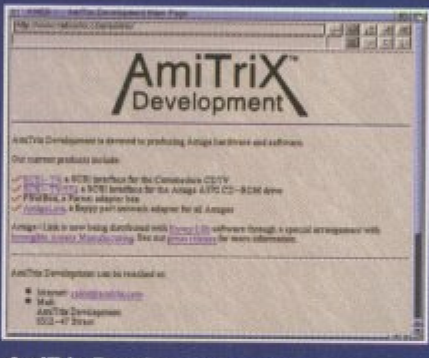
AWeb by Yvon Rozijn, the World Wide Web browser referred to by some as The Pride of the Netherlands, is coming all the way to Canada for commercial release. AWeb 1.0 was released earlier in the year as shareware, but did not boast a full set of modern HTML features.

The commercial version, dubbed AWeb-II, continues the full HTML 2.0 support and adds features such as background tiles and images, enhanced ARexx support, e-mail, FTP, telnet, and Usenet newsreading, and other HTML 3 characteristics such as frames. AWeb-II will also include HTML-Heaven 2.0, a former shareware product that works with your favorite text editor to make creating HTML easy. Previously registered owners of AWeb 1.0 and HTML-Heaven 1.0 will be offered special upgrade rates.

AmiTrix Development is an Alberta-based firm specializing in Amiga hardware and software. It is the North American distributor of the AmigaLink floppy-port networking hardware and manufactures custom SCSI solutions for the CDTV and A570 CD-ROM drive.

AWeb-II is slated for release on July 1, with the retail price expected to be US $45. For more information contact AmiTrix Development on 5312 - 47 St. Beaumont, Alberta, T4X 1H9 Canada, phone or fax (001) 403-929-8459, or e-mail sales@amitrix.com. You can also find AmiTrix on the Internet at http://www.networkx.com/amitrix/index.html.

For more information on AWeb, point AWeb 1.0 or your favorite browser to http://huizen.dds.nl/~aweb/.



AmiTrix Development – soon to be distributing AWeb II

LEGENDS JOIN SPLINTER COMPANY

In the wake of Amiga Technologies' management and staff shake-up, former AT president, Stefan Domeyer, has established a new company, PIOS, to develop and market a next-generation PowerPC computer on many of the ideals and principles of the Amiga. PIOS' plans include developing an operating system quite similar to the familiar AmigaOS.

To help reach these ambitious goals, Domeyer has called on two of the most prominent ex-Commodorians of recent times.

pios

Dave Haynie and Andy Finkel, formerly of Commodore's Amiga R&D division, have joined the team, Haynie as Project Manager Hardware and Finkel as Project Manager Software.

Dave Haynie's contributions to the Amiga are legendary. After leaving Commodore during the 1994 bankruptcy, he joined Scala. He has continued to be an Amiga user and advocate, as well as writing DiskSalv directing The Deathbed Vigil, the videotape documentary of the last days of Commodore.

Andy Finkel's name should not be new to Commodore fans. His involvement with Commodore software development dates back to the early 80s and the Vic-20. In later years, he managed OS development and was one of the key individuals working on PowerPC development on a contract basis for Amiga Technologies. In addition, PIOS has brought Dr Peter Kittel, late of Commodore Germany and Amiga Technologies, on as their Support Manager.

PIOS will be a company to watch closely in the coming critical months of the Amiga's course. Visit PIOS online at http://www.pios.de.

EXTRACTING COVERDISK FILES

Before you even think of putting the coverdisks anywhere near your computer you should make sure you write protect them by moving the black tab in the top corner of the disk, so you can see through the hole. Doing this makes sure you cannot damage your disks in anyway. There is no reason why the coverdisks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

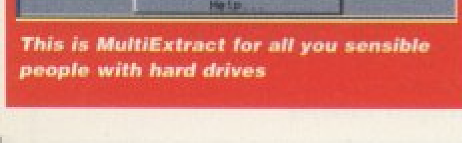
To extract any single archive, simply double-click its icon and follow the on-screen instructions. If you want to quickly extract the program to RAM, select the NOVICE level on the welcome screen and press proceed once on the current screen, and then again on the next. The program can then be found in your RAM disk. Normally most programs need further installing, so read the documents on how to do this.

HARD DRIVE USERS

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's *Installer* program in your C drawer. To make sure your hard drive has the correct files in place, double-click on the SetupHD icon. This will check if you have the Installer program and if not will copy it across – do not worry as it will not write over any existing files.

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the coverdisk files and allows you to extract a number of files in one go, to your hard disk or RAM.

When you run MultiExtract you will be presented with a number of check boxes, each representing one of the programs on that coverdisk. Just de-select all the programs you do not want extracting and then press proceed. All the selected programs can now miraculously be found in the selected destination.



This is MultiExtract for all you sensible people with hard drives

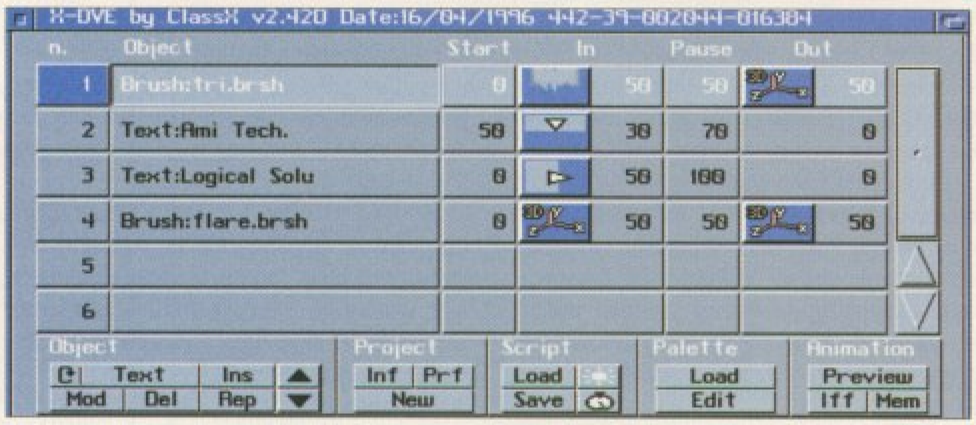


We bring you **X-DVE 2**, the ultimate in animated graphic effects

DISK 1



X-DVE 2



The main scripting screen from which you can adjust and view your animation

The Amiga has always been renown for its ability to effortlessly work with video. Low-cost genlocking and the Amiga's ability to replay high resolution animations make it a perfect choice for video titling.

X-DVE gives you access to a whole host of stunning effects by providing you with a number of base 'object' types such as text, graphic, animation, anim brush, start fields and then, by allowing you to apply any of X-DVE's various effects independently to each object you have on screen, a huge variety of overall effects are possible.

Once you have extracted the X-DVE archive and copied its drawer onto your hard drive, you need to set up the correct libraries for your machine before you run X-DVE 2. There are three sets of libraries available – one for people with plain A1200s, one for those who have an 030 accelerator with FPU, and a final set if you have a full 040/060 with FPU. It is important that you select the correct libraries otherwise when X-DVE comes to render a final animation, your machine will crash.

If you want to get a quick idea of what X-DVE can do, once you have loaded the program select load script and choose one of the four available demo scripts from the file requester. You can now either select to view a preview animation that shows the path all the screen objects will take in wire frame form, or select to render a final animation to memory. If you do this it will take a while, so be prepared for a wait.

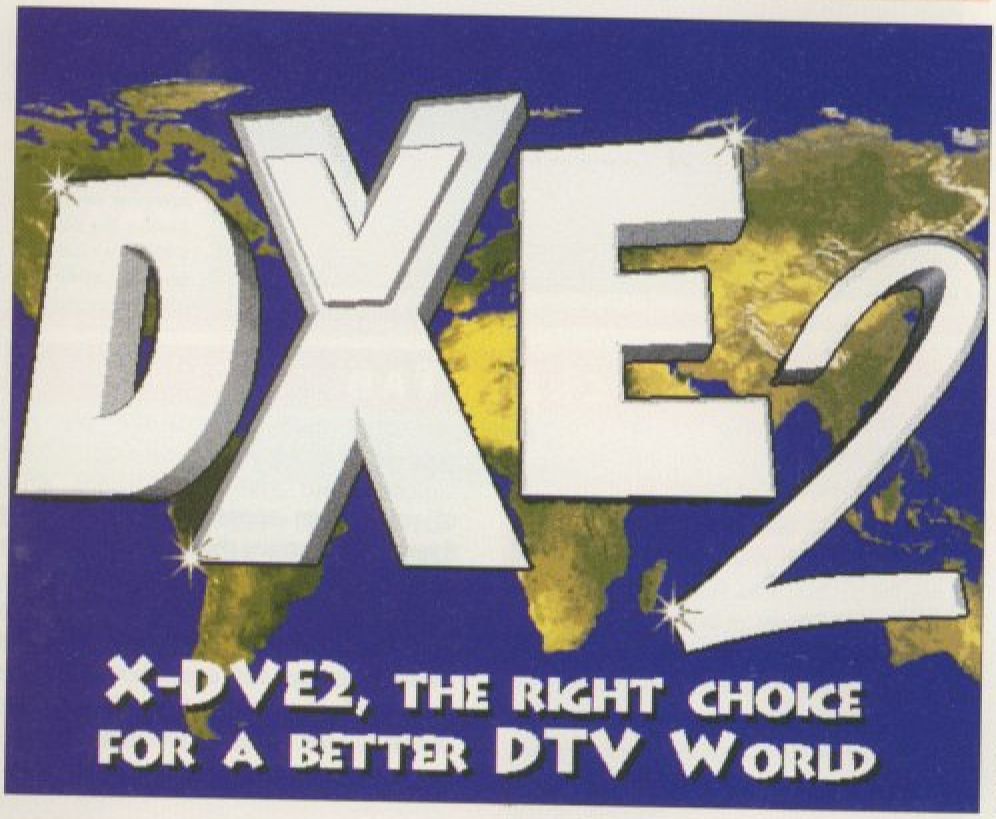
Due to the way X-DVE handles everything in terms of objects that have effects applied to them, each object you add can be considered to have a life of its own, separate from each of the other objects. You define when



The start and end effects are defined here and show what the object will get up to

New features

- Automatic support of OS3 picture datatypes
- New 'MultiBrush' object to import image sequences from disk
- Multiline Text objects with programmable spacing and centering
- Brush Object can now load the first frame of any IFF-Anim
- Anti-alising
- New attributes for every object: Bevel, 3D, Shadow, Background, Solid, Outline.
- Programmable resolution, from 320x200 to 1472x592 pixel
- Better IFF rendering – render the whole script or a single frame
- 10 New Slide effects, with the stunning 'Melt' and 'Carpet'
- New 'Warp' family with 40 effects, ready-to-use 3D sequences
- Lots of new Wind effects, three new base formulas
- Single object or full script frame-by-frame preview with VCR-like controls
- Support of continuous loop animations
- Render speed doubled for 3D, Warp and Lightsourced effects
- 1/16 of Degree precision for 3D rotations
- Compression speed highly improved
- Faster play speed under OS2.xx
- Re-stylised user interface, even more flexible



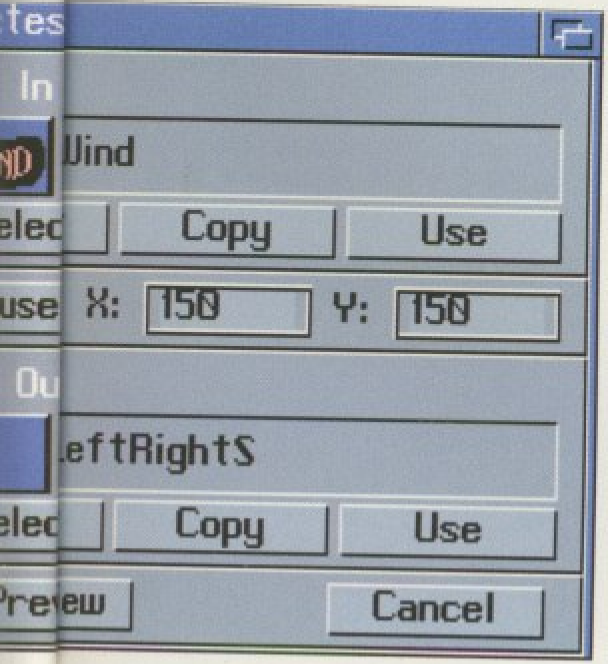
The final result of one of the demo scripts

and for how long each object is on screen using the IN, OUT and PAUSE entries for each object. To add a new object select the type you want from the cycle gadget in the object section – text would be a good choice – and press insert. You now have to select what font you want and what the text should say. Once you have said OK in the object entry you can say which frame the object should appear in and, once the entry effect has finished, how many frames it should stay before the exit effect kicks in.

The IN and OUT entries let you specify what sort of effect should bring that object onto and off the screen and how many frames it should take. Click on either and you get the requester which lets you specify what should happen for each element.

Select lets you choose one of five possible effects to apply to the current object. These can either be 3D zoom, wind, slide and a type of warp zooming around the screen. You can always just have the object appear on screen.

When an IN effect takes place its end position is fixed by clicking on the PAUSE button, which opens a screen with a wire frame box that you can then move around to where you want the first effect to finish. This, therefore, is also where the OUT effect will start from. You then have to set up how the actual effect will look. Depending on the effect type, you will have to define different positions or pick a pre-defined effect. In each object's requester there is a preview button which will give you a wire frame preview for just that object, as opposed to the main preview that will show the entire script.



DISK 2



PhotoAlbum

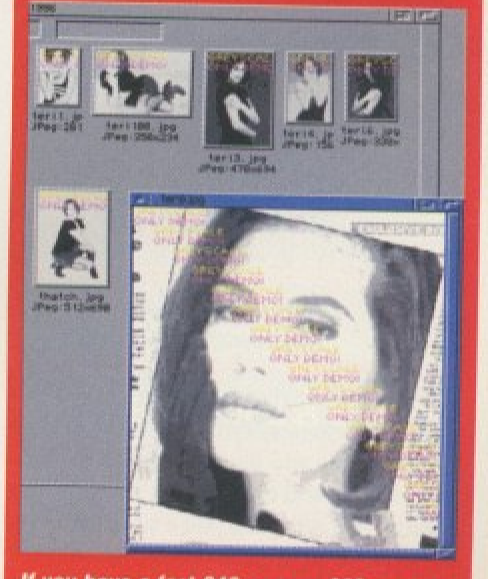
Author: Helmut Hoffmann
Workbench 3.0



To run this program you need to have Magic User Interface 3.1 or higher installed on your computer. MUI is available from any good PD house and without it you will not be able to run any MUI program

We have had a couple of picture cataloguers on the cover disks in the past but this one not only provides all the features of those but is also really fast, and if you have a CyberGraphX card it will take advantage of all those enhanced screen modes. PhotoAlbum also has direct support for a huge number of picture file types as well as Datatype support.

This is a shareware program and, as such, this demo version only allows you to have greyscale preview and full screen images. The registered version allows colour previews, up to 256 colours on AGA machines and 24-bit with CyberGraphX boards, along with a number of extra enhancements that will be added.



If you have a fast 040 or even 060 card the thumbnails are almost instantaneous

Faulty disks

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

TIB Plc, TIB House, 11 Edward Street, Bradford, W. Yorks BD4 7BH.

Please allow 28 days for delivery



To run this program you need to have Magic User Interface installed on your computer. MUI is available from any good PD house and without it you will not be able to run any MUI program



DISK 2

TinyMeter

Author: Tinic Urou
Workbench 2.04

I have resisted putting this program on the cover disk for a while now because it was originally just a fancy memory meter. However, the author has now added so much to it that I thought it was about time it appeared.

TinyMeter is probably the most attractive memory, disk, CPU usage and program launcher you can get. Through the MUI preference program you can adjust every aspect of TinyMeter's interface by applying fonts, patterns and adding icons. Because of this, initially setting up TinyMeter can take a while but it is worth it as you end up with a great looking dashboard.

ATAPI device

Author: Elaborate Bytes and Oliver Kastl
Workbench 2.04

To go along with this month's octal speed CD-ROM round up, which did sport quite a few ATAPI CD drives, I thought it would be a good idea to put an ATAPI device on the disk so that if you did fancy getting yourself one of those ridiculously fast CD drives, you could use it straight away.

The archive comes with a very good installer that makes selecting the CD drive a simple matter. Basically, when you fit the ATAPI CD drive make sure it is set up as the slave IDE drive otherwise your Amiga will not boot.

FlushMem

Author: Alan Doyle
Workbench 2.04

Every time a program is run on the Amiga it asks for certain system resources such as libraries, fonts and devices which are loaded into memory and the program will then happily run. This is not too bad a situation if only a couple of fonts or libraries that are commonly used are in memory, but if you have the situation where one program makes heavy use of system resources and loads many libraries, devices or fonts, then this can be a drain on memory because when you quit these resources will not be removed from memory. Two example programs that do this are Image Engineer and MUI.

FlushMem allows you to reclaim this used memory at the touch of a few keys, possibly freeing 100 kilobytes of memory. The program is only 10K so it is a prime candidate for your WBStartup drawer, and the hot keys can be set up from the program's icon Tool Types.

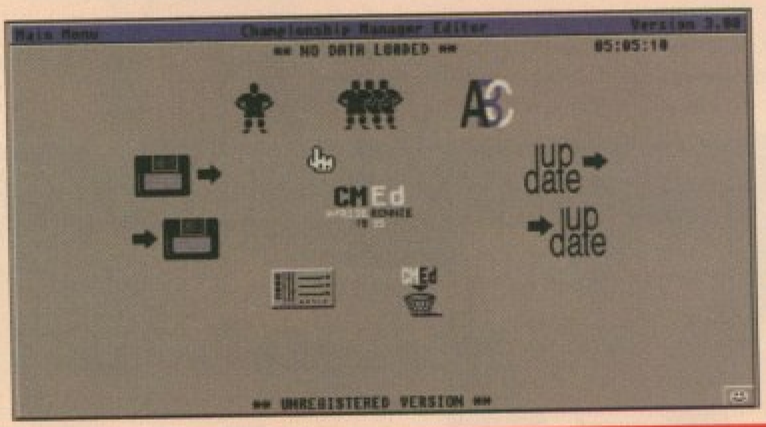
Championship Manager Editor v3

Author: Tinic Urou
Workbench 2.04

If you are anything like our games reviewer, Andy Maddock, you will be literally running around like a headless chicken shouting ream at the top of your voice at the very thought of a having a Championship Manager editor. Well this is exactly what you have got.

The program itself is written in AmosPro, but is done very well and runs on our A4000 and on 060 machines and quits back to the Workbench without any problems.

This is an unregistered version of CMEd that has some of the features disabled, but even so many of the functions work. If you want CMEd to be continually developed then you should send a crisp tenner to the hard working chaps who wrote CMEd. They are students so your money will not go to waste – probably just down their throats.



If you are the sort of person that likes to update all the premier league teams for 96, CMEd is right up your alley

ScreenTab

Author:
Workbench 2.04

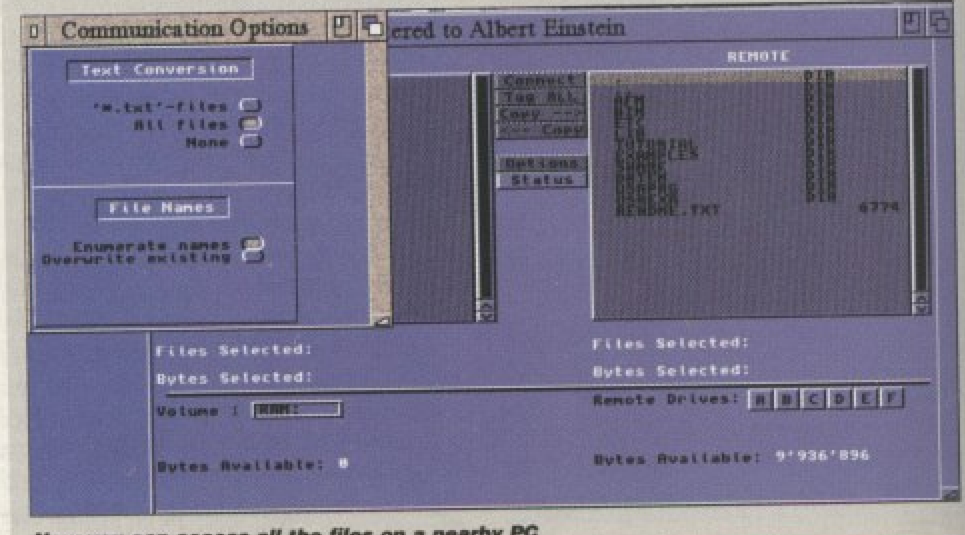
This is another 'I like that feature of Windoze, let's have that with Workbench' type of utility. ScreenTab has two uses. Firstly, if you move the mouse to the bottom of the screen a task bar will appear, allowing you to jump between screens by clicking on the screen you want. The other side to the program is used by pressing its hotkey, resulting in a window in the middle of your screen appearing. By then going through all the screen choices you can jump to another application's screen.

There are a number of extra functions available such as adding small icons for different screens and applications, and you can exclude the task bar from appearing on certain screens if you do not want it there.

Easylink

Author: Tinic Urou
Workbench 2.04

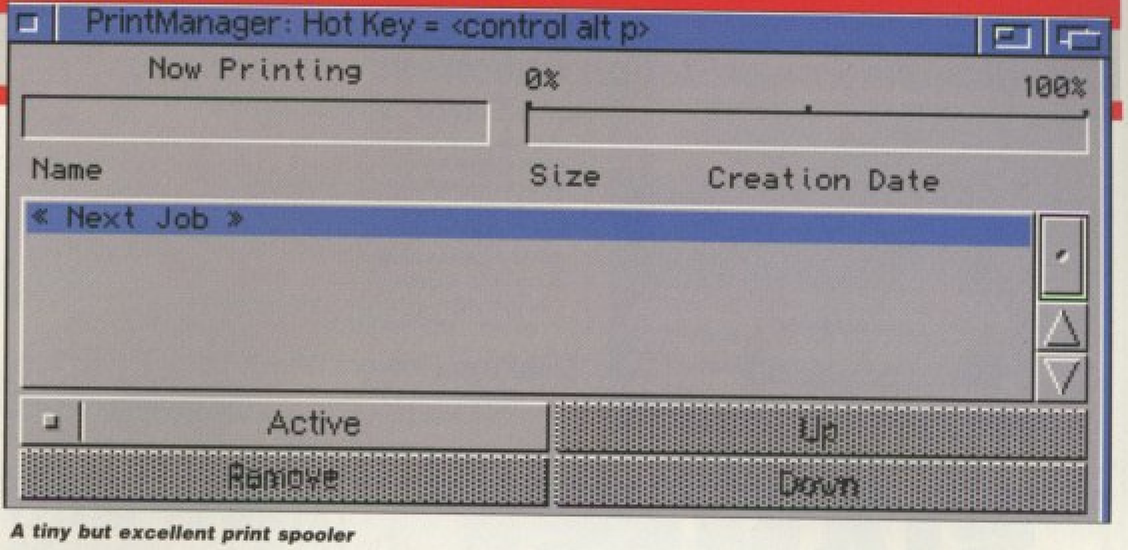
If you are having to continually work with PCs in close proximity to your Amiga, the easiest way to transfer files is via some sort of network. Unless you are willing to fork out for an Ethernet card, you are left with either using a terminal program or some sort of dedicated software such as Easylink. Easylink is a PARNet-style network, but for Amiga/PC data transfer via a simple Gadtool interface on the Amiga side. Speed wise, Easylink is not going to set the world alight, but if you register for the full Turbo version then it is up to four times quicker.



Now you can access all the files on a nearby PC

PrintManager v2

Author: Tinic Urou
Workbench 2.04



A tiny but excellent print spooler

A print spooler is something not everyone needs but PrintManager is very well implemented and is small enough – only 14K – to leave in your WBStartup, working invisibly so you will not even know it is there.

PrintManager sits on top of either the parallel or serial device and will spool printer device calls, so modem users will not be effected. Having PrintManager has a number of advantages. For example, if your system crashes while printing you can restart what you have already printed, or if you tell it to save off the spool file you can take that and print it off on another printer.

If you have Workbench 3, using the datatypes allows PrintManager to directly print any support datatype that can be viewed using MultiView. As PrintManager can have both an Appicon and Appwindow you can just drag and drop the text or picture file you want printing into either the Appicon on the Workbench screen or into PrintManger's window. PrintManager is a commodity so you can use exchange or its hotkey to pop open its window at any point.

EasyPrint

Author: Andrea Latina
Workbench 2.04

I think I'm still going to be complaining about the Amiga's printing capabilities for a long time, and until someone does something about it there are always going to be programs appearing to ease the situation. EasyPrint is another program that allows you to print pictures at their full 24-bit colour quality, improving both greyscale output because you can have the full 256 shades of grey and colour images as opposed to the Amiga's normal 10-year old, 12-bit efforts.

As standard, this version of easy print will only handle the Amiga's standard IFF-ILBM images, but the full version can load Jpegs and any installed datatype picture. Once you have loaded a picture into EasyPrint there are various things to do to it before it is printed out to your printer.

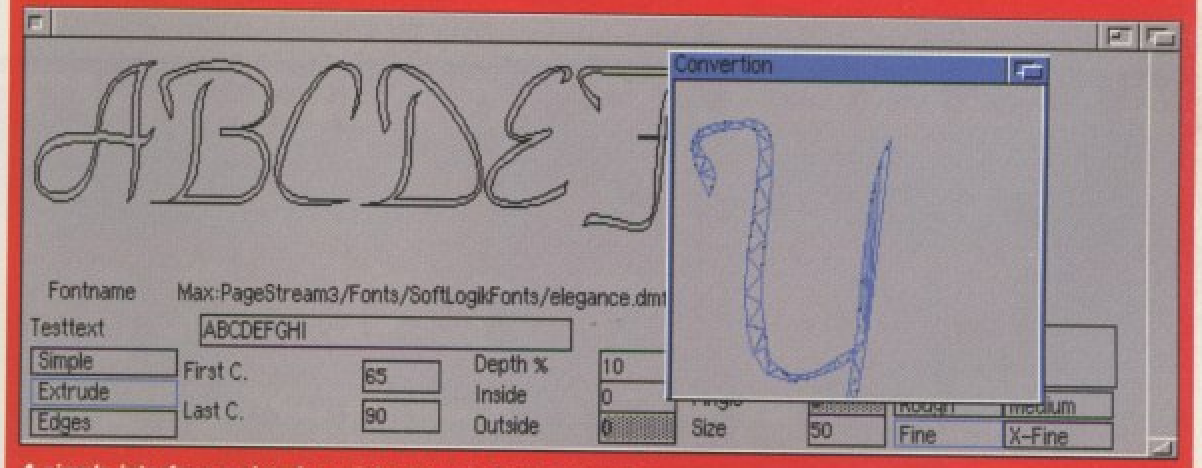
The colours of the pictures can be adjusted by changing the gamma, brightness or contrast levels in either RGB or CMYK modes.

Confront

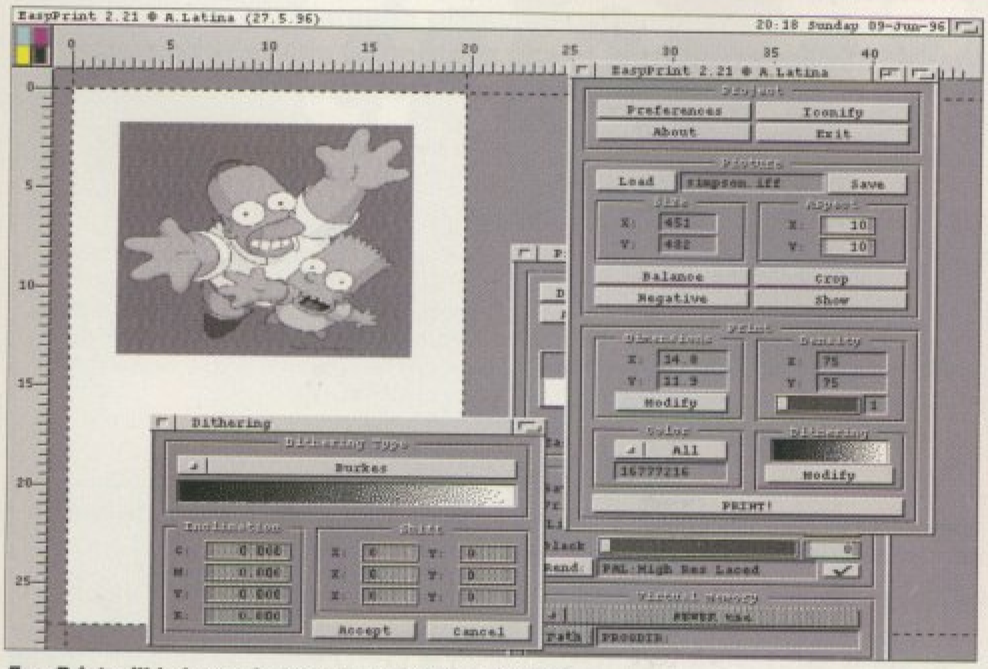
Author: Martin Hoffmann
Workbench 2.04

Confront is a powerful font converter program that allows you to change fonts used with Pagestream into three dimensional objects suitable for use with programs such as Videoscape and Cinema 4D. Pagestream fonts store only the scalable outlined data of each of the individual letters, so Confront will take this data and produce the three dimensional objects constructed out of individual triangles.

The interface is fairly straightforward, and the program starts working in German, but you can change the language to either English or Spanish from the end menu.



A simple interface makes for quick and easy font conversion



EasyPrint will help you improve your picture printouts

Image Engineer problems

It seems there was a possible problem with the SuperView install script on last month's coverdisk. If Image Engineer is reporting that it cannot open version 12 of the SuperView libraries, you have this problem.

The solution is very simple. For some reason the installer was not copying across one of the SuperView libraries, so you will have to do this yourself. Extract the SuperView archive to RAM, open up its drawer and you should see the install icon and a number of drawers. Open up the Libs drawer and you should see a few other drawers and two library files. You need to copy the *Superviewsupport.library* file across to your Workbench Libs drawer. You may have to select *show all files* from the Workbench menu to find the Libs drawer.

Once you have copied this file across, Image Engineer will work without a hitch. If you already had the SuperView libraries installed you would not have had a problem running Image Engineer, but you should do this as well as this is a slightly more up-to-date library file.

HiQ Limited *Serving the Amiga User since 1988*

Why not try our Internet site at www.hiq.co.uk

Multimedia PowerStation options for all Amigas



Speakers not included

PowerStation Specifications:-

1. 200 watt power supply for complete Systems including monitor on one power switch.
2. Good looking high quality steel construction.
3. Five drive bays, various mounting configurations.
4. Ideal monitor stand and cables slide underneath.
5. SONY 2.4 speed CD-Rom drive.
6. Siamese PC upgrade compatible.
7. Low cost when compared to single drive cases.
8. DOES NOT VOID WARRANTY.

Desktop PowerStation pack Price

Includes Sony 2.4 speed SCSI CDRom + Squirrel
NEW PRICE £279.95. Tower version add £20
P&P £12.50

RING ABOUT SURF SQUIRREL QUAD PACK

Siamese Tower Version



Speakers not included

SIAMESE SYSTEMS *NOW SHIPPING*

£129.95

CALL FOR DETAILS

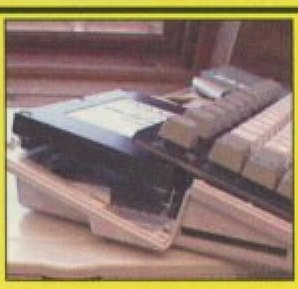
A1200 3.5" REALLY LOW PRICES

JTS 1Gb	*Only £179.95*	**ULTRA SLIM**
JTS 1.6Gb	*Only £199.95*	**LIMITED SUPPLY**

JTS drives formatted, and Magic Workbench plus PD Software installed. **Includes cable pack.**
Fits as easy as a 2.5" Drive, call for details.
Free fitting for personal callers.
UK Post and Packing £7 (CityLink)

SCSI DRIVES

Quantum 840mb Lightning	**New Price £179.95**
Quantum 1.2Gb Lightning	**£249.95**



HiQ Ltd, Gable End, 2 The Square, Hockliffe, Beds LU7 9NB.
EMail address:- steve@hiqltd.demon.co.uk
All Prices include Vat, Please add 2.5% for Credit cards unless Connect and Delta versions

Tel 01525 211327 **Call for brochure** **Fax 01525 211328**

MODEMS AND INTERNET PACKAGES FROM £49.99

GET YOURSELF CONNECTED

Whether you want to make new friends, swap ideas and programs, or do some serious research, a modem will open the door to an exciting new world where almost anything is possible. A modem has already become an important part of many Amiga user's computer setup. New software can be received in minutes, the benefits are immense. You only need to flip through the pages of this very magazine to see mention of modems and the Internet, and here's your chance to join the swarming crowds with one of these excellent modem packages!

"BEGINNER PACK" 9600bps

This is our best selling pack and consists of a high quality desktop 9600 baud modem, all connecting leads, PSU, NComm software, an invaluable 'Archivers' disk, plus handy help/advice sheets, as well as a full access to our BBS, where you can download 1000s of latest files for the Amiga!

£49.99

"NOVICE PACK" 14,400bps

For the more adventurous, or those who wish to get involved in the Internet, this pack comes recommended. A faster 14,400 modem as well as all the extras from the previous pack, PLUS additional information on the internet - and of course, full access to our BBS

£89.99

"LIGHTNING PACK" 33,600bps

For big-time Comms users, this pack will most certainly be of interest. 33,600bps is currently the highest speed in modem technology, with the US Robotics Courier V34+ FaxModem. this nifty unit can transfer upt 1Mb of data in less than four minutes.
Please call for information.

£239.99

All our packs come complete and ready to use straight away. You will be able to log onto our BBS, Midnight Express, and download as many files as you wish (full logon instructions included). Please call with any question you may have!

SALES/ENQUIRIES: 01384 77172

Megatronix Software, 21 Tiled House Lane, Brierley Hill, West Midlands, DY5 4LG

Targetting the masses



We sent **Dan Winfield** to Toulouse to learn more about **VIScorp's** plans for the **Amiga**

Just when you thought that the Amiga technology was in safe hands and further development and products were promised, everything again was turned upside down with the announcement of VIScorp's intentions to purchase the Amiga. At the WOA show, Bill Buck could say little except that the Amiga would continue to be produced by AT and no dramatic changes were promised. He said a full picture of VIScorp's plans for the Amiga would be presented at the Frankfurt computer show on 24 April but, unfortunately, the Frankfurt date was cancelled and in its place a developers' conference was scheduled for 19 May in Toulouse in the South of France.

This was billed as the day the future of the Amiga computer was to be decided, and sure enough that is what happened. Now, despite the serious lack of companies from the UK and major German players like Phase 5 (see boxout), there was an impressive turnout. VIScorp also brought some major Amiga celebrities along – after all, this day was to be a working conference, and with the likes of Carl Sassenrath and Don Gilbreath at hand it became just that.



Eric Laffont

"VIScorp is committed to the future of the Amiga computer. We're not talking about the set-top box only, we are actually sneaking Amigas into homes across the world"

The day started with Bill Buck giving his own personal guarantees. He said that although the deal, at the moment, was still based on just a handshake between himself and Helmutt Jost, VIScorp will be the owner of the Amiga. He then positioned himself centre stage and said VIScorp was committed to the future of the Amiga computer. VIScorp believes that the Amiga can still be a valuable choice for the marketplace. Bill Buck announced that the main support for developers and users would be the Internet, which would contain documentation on Amiga programming and be used as a way to support all the different countries they are now talking to.



Carl Sassenrath models the Amiga Boing T-shirt

Future sales

VIScorp has a clear vision of what it wants to do in the future and thinks that by 1997 there will be more Amigas sold than have ever been before. To do this it will have to sell more than four million Amigas. Now that's a big promise, but by the time you read this VIScorp should have announced that a big company that makes TV sets will put this set-top box inside its televisions. VIScorp needs Amiga developers and Bill Buck made it clear that the past was the past, it was now going forward and was going to demonstrate this every step of the way. As an example, he said that if VIScorp wasn't going to do something he'd let us know. He then continued by saying that a Walker before Christmas was unlikely, but he did say he was willing to work with anyone who wanted to pick up the ball and run with it (see boxout).

What will VIScorp do now for the Amiga? Firstly, it will introduce a new version of the operating system by the 4th quarter. Secondly, it will release its own products together with the ED which can be adapted in certain ways to add new ➤

functionality to the A1200 and A4000. Bill Buck also reiterated VIScorp's willingness to work with people on any development projects, such as porting the OS to some other platform. However, he thinks there is another solution and has already been in conversation with Digital about the Alpha chip, but this wouldn't be possible before the middle of 1997.

The power users will have to wait until the Phase 5 Amiga, but for now we have the ED. Bill Buck gave a demo of what the ED could do, but it wasn't running the Amiga OS but an OS written by Carl Sassenrath that VIScorp used before it had the rights to use the Amiga OS. The overhead projector was black and white and the graphics were makeshift, but as the demo went on I couldn't help but get more and more interested.

What we were being shown was a very cost-effective magic Internet and comms box. Firstly, the box integrated the telephone with the TV. ED can store your numbers and you can phone by speaking into the television, using the remote control to dial, and if someone phones you, their name can be genlocked onto the screen. Secondly, there is the Internet and other on-line services. We were shown the ED connecting to an audio text service, to CompuServe, and sending a fax, and the use of existing services will ensure that ED has plenty of programs when it is launched.

Networking

Okay, so why was I so excited? Well, here we have the prospect of a huge network of computers all based on the Amiga OS, all completely compatible, and the possibility of a rebirth in Amiga software development. Multiplayer games, BBSs, Internet, on-line services, TV guide, phone directory, diary/calendar and fax/telephone all in one box, and they all cross over into television as well. It would be possible, for example, to be watching an advert on TV and with the press of a button, speak to sales or source more information from the advert's Web site. Finally, the ED isn't much different to a desktop Amiga – plug a keyboard and monitor into an expansion card and voilà, the ED is a new Amiga.

Don Gilbreath then gave us the low-down on the ED's hardware, even showing us the first board to run off the production line. The ED has several high-speed serial ports and an EPP parallel port with a modular build to take comms and video cards for each country. The board has space for 4Mb of ROM and some FastRAM, but it was not yet decided how much, however. The ED has additional DMA channels to handle transfer speeds of up to 45Mb/s, and there is also a double-sided remote with Qwerty keyboard on one side.

What about the OS? Well, Carl Sassenrath, dressed in an original Amiga Boing T-shirt, took up the mic and said he was glad to be in the position again of having a chance to continue the original ethos of the Amiga as a machine for the home. We're not talking about the set-top box only, we are actually sneaking Amigas into homes across the world.

Insight

Then he gave us an insight into how he was going to add to the Amiga OS and try to fill the 4Mb of ROM. It would have all the extra device drivers, a high performance embedded TCP/IP stack, PPP and SLIP for dialling up the Internet, FTP and SMTP protocols for file and mail transfers, some file codecs like Lha to allow software archives such as Aminet to work transparently, Jpeg and GIF decompression code, Wave, Aiff and other Internet-standard file formats. Also included will be most of the tools needed for on-line services such as Web browser and e-mail software, and some extras such as an on-screen doodler, video capture and security. This should give us some clues as to what may be in the new version of the Amiga OS for the desktop promised by Bill Buck.

Eric Laffont then reported mainly about the Internet. He had received over 2000 e-mails of support and ideas, and most people were concerned that they were going to be let down and wanted VIScorp to know how they felt about the Amiga. A large number said they would buy another Amiga, even though most people already had more than one. Let's hope VIScorp can continue to listen to its users as they have demonstrated here. The afternoon was conducted in three lecture rooms. One contained a handful of Amigas running demos, and was where the Amiga users discussed the morning's events and swapped Amiga chit chat. The dealers and distributors were discussing logistics and the current set-up of the Amiga in another room and finally, there was the developers' room. This was like an Amiga school, with Carl Sassenrath and Don Gilbreath as the teachers. Here, however, the conversation became quite heated as several developers pointed out that the Amiga was still in the same position as three years ago. This, obviously, was true, but was nothing to do with VIScorp.

Promises Promises

Eventually it all calmed down and everyone began absorbing the technical details of the ED and discussing the future of the Amiga. Surely what VIScorp was promising could prove to turn out rather well for the Amiga developer community – the possibility of a mass market for its products must give hope. It was interesting to hear that VIScorp had already been to see BeBox about using its multiprocessor PowerPC hardware for a future Amiga. So maybe VIScorp did mean business and the Amiga wasn't in such bad hands. The whole day was a great success and we were promised more in the future in other countries.

AC

Still a Possibility

This was the week that Phase5 announced details of its new PPC Amiga clone. The specs were impressive and certainly made an amazing computer, but with the announcement came the news that communication between AT and Phase5 had been almost non-existent over the past few months. This accounted for the delays in delivery of the Powerup developer boards and also the break away now being made by Phase5. At this point there had been no talks with VIScorp, although a meeting was being arranged for the week following the Toulouse meeting.



The panel of experts



A bad picture of the first Ed motherboard

Walker Moves On

Wait! It may not be the end for the Walker. I have heard of two companies interested in taking over the project and, whilst writing this article, of unconfirmed news that a German manufacturer was going to make them and badge them under the name RTL, a large German TV network. Let's hope this is the first of many close co-operations with other companies that VIScorp so wants to build following this Toulouse conference.

ALWAYS CALL FIRST TO VERIFY PRICE AND AVAILIBILITY, BEFORE PLACING AN ORDER.

White Knight Technology

The *AMIGA*, DEC Alpha & Non-Linear Computer Based Video Editing *Specialists*

ALL PRICES INCLUDE VAT

The DraCo Video Editing Workstation

You've seen the reviews, now buy the machine.

A professional, S-VHS / Hi8, non-linear video and audio editing system, upgradable to broadcast quality. The Draco is a 50MHz 68060 based Amiga clone with high speed 24-Bit graphics, fast SCSI-2 controller, CDROM, 5 fast Zorro II Slots and 3 Draco Direct 32-Bit slots. It is supplied with 8Mb, the DraCo Motion, full motion JPEG card, and Toccata 16-Bit sound card. A 1Gb SCSI-2 drive for audio, applications & data, plus a 4Gb Fast SCSI-2 drive for video. Future upgrade options include a DEC Alpha AXP Co-Processor and SMPTE timecode board. The new DraCo Direct Vlab Motion, "DraCo Motion", offers optional component YUV for Betacam, Sony Mini DV, D1 and D2 in and out. With compression as low as 4:1, the video output is upto full Broadcast Quality.

£ 6099 Self Build or £ 6399 Built, Configured & Tested

For More Information, Or To Book A Demonstration, Please Call

01920 822321

9.30am - 6.00pm Monday - Friday

E & OE 05/06/96

VISA

2.5% Surcharge On Credit Cards. NOT SWITCH or VISA-DELTA

FAX 01920 822302

PO BOX 38, WARE, HERTS., SG11 1TX

MACROSYSTEM PRODUCTS

We Are The Sole UK Distributor For MacroSystem (Germany) Products

DraCo Non-Linear Editing Computer Available Now & On Demo From	£ 3,199
DraCo Budget 68040 Version	£ 2,399
DraCo Motion Broadcast Quality JPEG Video & Audio Editing for the DraCo.	£ 1399
YUV Option For DraCo Motion, I/O	£ 469
Mini DV Option For DraCo Motion	£ 469
D1, D2 & SMPTE Options	£ Call
VLab Motion Near S-VHS Quality JPEG Video Editing + Animation Playback.	£ 999
Toccata 16-Bit Stereo Sound Card	£ 299
Samplitude Pro For Toccata	£ 115
Samplitude SMPTE For Toccata	£ 169
VLab Y/C Real-time digitiser card	£ 299
VLab Y/C Ext. Real-time digitiser	£ 359
Retina 24-Bit Graphics Card ,1Mb	£ 189
Retina 24-Bit Graphics Card ,2Mb	£ 239
Retina Z3 Card for A4000, 1Mb	£ 369
Retina Z3 Card for A4000, 4Mb	£ 499

Product Specifications Available On Request

NEW DraCo Direct, 32-Bit VLab Motion

CYBERVISION Price Drop



HARD DRIVES (SCSI-2 & IDE)

SCSI	1.0Gb £ 269	2.1Gb £ 359	4.2Gb £ 799	3.5"
IDE	1.2Gb £ 209	1.6Gb £ 239	2.5Gb £ 399	3.5"

Seagate Barracuda 4.2Gb - Only £1129

HIGH-SPEED RENDERING

With an ALPINE 275MHz DEC ALPHA Workstation

This is a must for any professional 3D animator.

Specifications : 275MHz DEC Alpha AXP21064 CPU 2Mb cache + 32Mb RAM, 1Gb SCSI-II Drive and CDROM, 2Mb Stealth Video card, PCI Ethernet card & Windows NT. In Tower Case with Keyboard & Mouse.

All This For £ 4,999 (Including VAT !)

CALL FOR SPECIFICATIONS, OR A DEMO

We Also Supply 266 & 300MHz 21164 Machines

MICRONIK TOWER CASES

Amiga 4000 Full Size, 7 Slots NOW	£ 439
Amiga 1200 Mini Tower, 5 Slots	£ 499

A1200 Infinitiv Design Case Is Complete With An Amiga Keyboard Case & PCMCIA Adaptor. Both Cases Have Power Supply & Zorro Slot Busboards

An A1200 Zorro III Busboard Will Be Available Soon

Sorry, MicroniK Case Parts Not Sold Seperately

A3000/4000 PRODUCTS

CYBERVISION 64 ULTRA FAST 64-Bit GRAPHICS CARD, With PHOTOGENICS LITE - 2MB £ 289 4MB £ 349

CYBERSTORM

Mark II, 50MHz 68060

New Version For A3000/T & A4000/T

For Only £ 699

With SCSI-II Controller £ 799

BLIZZARD 060 Accelerators

With 50MHz 68060 (Inc. MMU & FPU)

BLIZZARD 1260 For The Amiga 1200, Exp. to 64Mb RAM, Optional SCSI £ 599

BLIZZARD 2060 For The A1500/2000, Exp. to 128Mb RAM, Built in SCSI £ 699

Blizzard 2060 Requires The OS 3.1 Upgrade Kit

VIDEO / GRAPHICS PRODUCTS

PAR (Amiga /PC) with FREE 1.2Gb Drive	£ 1,949
RENDALE 9402 SVHS / HI8 GENLOCK	£ 295
RENDALE 8802 Composite GENLOCK	£ 149
HAMA 290 YC & Composite GENLOCK	£ 745
LOLA 1500 Composite GENLOCK	£ 175
LOLA 2000 YC & Composite GENLOCK	£ 349
SCALA MM400 Titling & Multimedia s/w	£ 295
PICASSO II 24Bit Graphics Card, 2Mb	£ 249
MICROVITEC 17" M/Sync Amiga Monitor	£ 649
MICROVITEC 14" M/Sync Amiga Monitor	£ 289
LIGHTWAVE 3D V4 Amiga, CD Version	£ Call
LIGHTWAVE 3D V5 PC or DEC Alpha	£ 1169
LIGHTWAVE 3D V5 PC UPGRADE From V4	£ 411

Removable SCSI

SYQUEST EZ135 DRIVE

135Mb	Ext. + 1 x Cart.	£ 199
135Mb	Cartridge x 5	£ 80

IOMEGA ZIP DRIVE

100Mb	Ext. + 1 x Cart.	£ 189
100Mb	Cartridge x 5	£ 75

SYQUEST 105S DRIVE

105Mb	Int. + 2 x Cart.	£ 159
105Mb	Ext. + 1 x Cart.	£ 159

32-Bit, 72Pin Memory SIMMs

At All-Time Low Prices !

4Mb	(70ns)	£ 59
8Mb	(70ns)	£ 89
16Mb	(70ns)	£ 159
32Mb	(70ns)	£ 309

PROFESSIONAL SERVICES

Full Commercial Rendering Service for Lightwave 3D Using our DEC Alpha & Amiga

Transfer Of Frames To Video

Please Telephone For Further Details

AMIGA 4000T

A4000T-040 25MHz 040 CPU With 6Mb RAM and 1.0Gb Fast SCSI-2 Drive

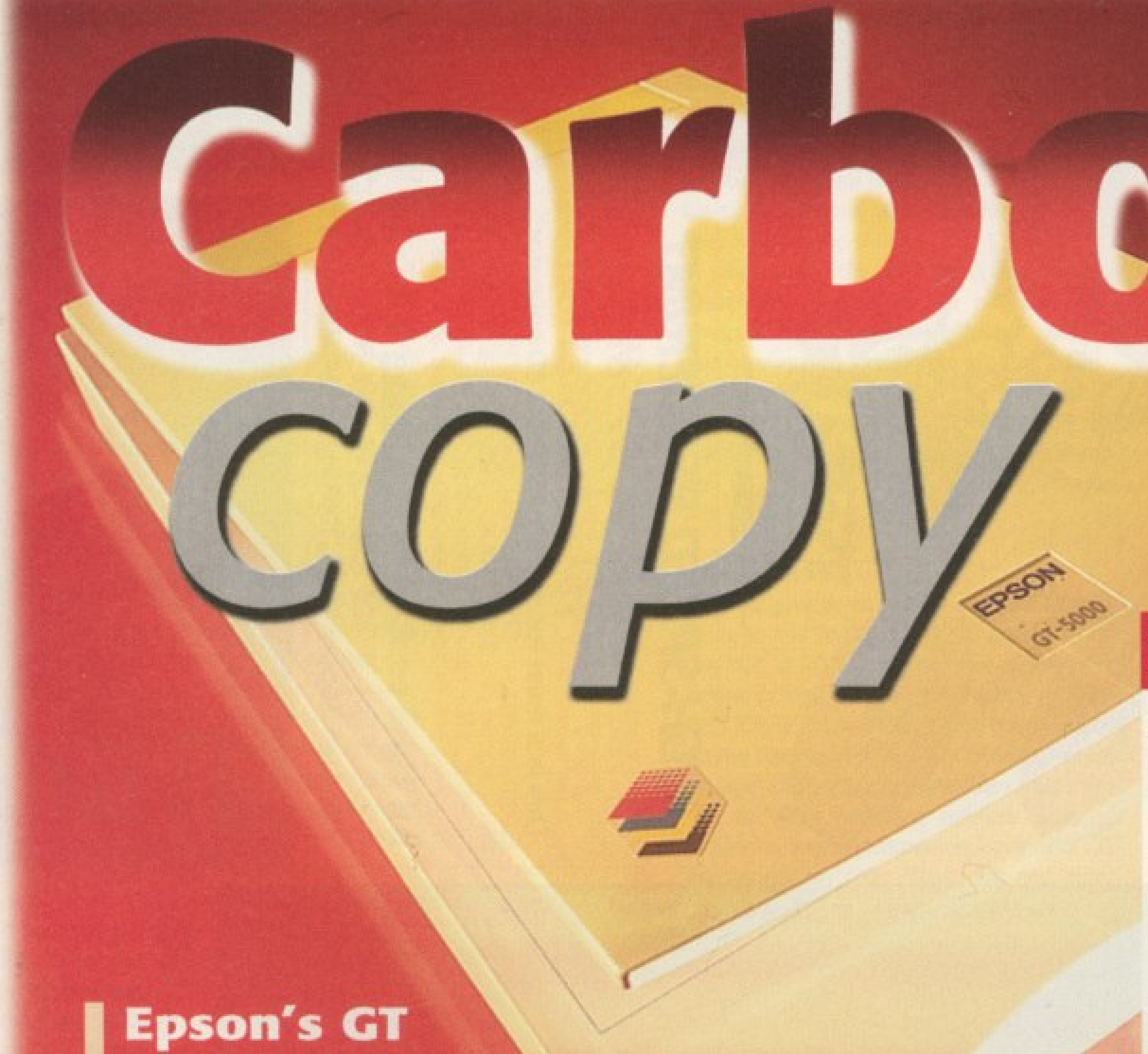
From £ 1999

OTHER PRODUCTS

PD DRIVE | REAL 3D
ETHERNET | DAT DRIVE
CDROM DRIVES | EMPLANT

Carbon copy

Epson's GT flat bed scanners are renown for their quality and speed. **Neil Mohr** tests the baby of the bunch



When it comes to pictures in publishing, resolution is all important. If you want sharp, clear, good looking pictures then there is no substitute for a quality scan. You can try using a VIDI grab but even at high resolutions it will appear fuzzy compared to a scan.

Scanners also win hands down when it comes to the maximum resolution achievable. If you consider our cover images are around 3000 by 4000 pixels, give or take a few hundred either way, the only way you can get an image from the real world of this quality is by using a scanner.

The GT – 5000 is an A4 sized flat bed scanner. A flat bed is, obviously, always going to produce better results than a hand scanner because a hand scan is fairly reliant on how steadily you can draw the scanner over the picture. A scan tray can help out but you will never get the precision that the mechanism in the scanner can produce. Actual scan area is 297 mm by 216 mm so will comfortably accommodate A4 sized paper, which just happens to be the size of *Amiga Computing* now. Physically, the actual scanner is not much larger than the scan area – a foot wide and a foot and half long – and with it being colour co-ordinated with the Amiga, strangely enough, sits very nicely alongside your computer.

Superiority

There are two versions of the scanner. One comes with a SCSI interface and the other is the parallel port version. Unfortunately, Amiga users cannot take advantage of the SCSI version at the moment as there is simply no software that supports it. The SCSI version is going to be superior to the parallel port version because data will be transmitted faster from the scanner, even though the overall quality of the scan will not be affected.

Before you can use the parallel scanner

Being almost a third smaller than the GT-6500, with thinner sides and front, and almost twice as fast, the 5000 is a more than admirable replacement and worth every penny

you also need an Amiga-specific parallel cable. The pin out is provided by ImageFX but most Amiga specialist retailers such as Power Computing and First Computers will provide the cable and even the scan software either bundled with the scanner or as an extra. Consequently, you do not have to

Scanner sof

It is all very well and good having an excellent scanner such as the GT-5000, but if you haven't got the software to support it then it's as much use as a door stop. Luckily, the Epson GT range of scanners is well catered for on the Amiga side, with both the top-of-the-range image processing packages having support modules for Epson scanners.

ImageFX comes with a number of scanner modules including one for the Epson, while ADPro's module has to be bought at extra expense. If you do not currently own either of these programs, Power Computing currently bundles its own scanner software – this is the same program that comes with its hand scanners, and makes a usable alternative.

For the review I was using ImageFX which comes with a comprehensive Epson module which works with the whole Epson GT scanner range. The only limitation with the current module is that it restricts you to a top resolution of 1200 dpi, half the potential resolution of the Epson. Usually these top dpi settings are unnecessary but if you want to

worry about the embarrassment of having to trudge down to Maplins and then heat up your soldering iron.

Epson's usual minimalist style of casing manages to find its way to the GT-5000, with it sporting a single power button and a reset button. Other than that you are just left with three display LEDs.

On that all-important subject of resolution, this Epson is the low-end model of the GT range but still has an impressive specification. With an optical scan resolution of 300 dpi it should more than suffice for all but the most demanding situations, and if you really need a higher resolution the Epson can output up to 2400 dpi using interpolation. This is the process whereby the scan head is tracked back over the same area a number of times, in slightly off-set positions, and the scanner then works out what is in-between from these multiple scans.

PRECISION

The end results are not going to be as sharp and precise as using an optically true 600 or 900 dpi scanner, but if you need an extra large scan then at least the GT-5000 has the option of allowing you to get extra high dpi scans. The other downside to the interpolating is that due to the scan head having to make multiple passes, anything over 300 dpi is going to take much longer because the scanner basically has to make two, three or four times as many scan passes.

Speed wise the Epson is good. Initialisation and warm up takes only a few seconds, and it provides lightning quick previews and greyscale scans. When it comes to 24-bits scans things do slow down a little. At 100 dpi you can expect a fairly speedy A4 scan to take about a minute, but with higher resolutions such as 300 dpi you can expect a longer wait of around nine minutes. Due to the control ImageFX allows you to have over the scanner, primarily gamma, colour and brightness correction, you can quickly get superb results. The scanner managed to reproduce all the rather psychedelic and pastel colours of our July issue excellently.



Originally the GT-6500 was Epson's entry level scanner, but the GT-5000 comes as its replacement. Being almost a third smaller, with thinner sides and front, and almost twice as fast, the 5000 is a more than an admirable replacement and worth every penny.

TWARE

'blow up' a small section of a picture, scanning at a high dpi provides the perfect way to do so.

One huge advantage ImageFX has is its built-in virtual memory. This allows ImageFX to load and process images that are too big to fit into your computer's normal memory, and unlike conventional virtual memory you do not need a MMU. ImageFX's ability to use this pseudo-virtual memory is indispensable because even scanning at resolutions as low as 200 dpi requires 11Mb of free memory, and without it you can forget about scanning at anything above 300 dpi. You could say that ImageFX is limiting by only going up to 1200 dpi, but considering this produces a virtual memory file of around 430Mb, I cannot see too many people being put off by this.

Setting up ImageFX for the first time is a little confusing because as standard it looks for an ASDG-style parallel lead. This can cause caching problems with 040 processors, so Nova Design recommends you use what it refers to as a GVP-style lead. When you first select the scanner mode in ImageFX, it waits about 15 seconds as it tries to talk to the scanner, after which it complains that it cannot because it is trying to use the wrong style lead.

You can then change the cable type in the scanner's extras options, but before you press the OK button you need to reset the scanner otherwise ImageFX will not recognise that the scanner is active and just sit there waiting – now that had me baffled for a while I can tell you.

Once the scanner is up and running you can run preview scans, either colour or greyscale, in a matter of seconds and they are good enough to get a rough idea of what the final scan will be like. However, the scanner is so fast that you may prefer to run off a 50 dpi scan. ImageFX also allows you to take advantage of the Epson's extra features, such as a number of different halftones and a gamma and colour correction for both VDU displays and printers. These settings allow you to get the best colour representation for your needs.

Bottom line

REQUIREMENTS

RED *essential* — **BLACK** *recommended*

6 Mb RAM; Software; 6Mb Hard drive; Cable; ImageFX/ADPro; 16 Mb RAM or above; 030/040

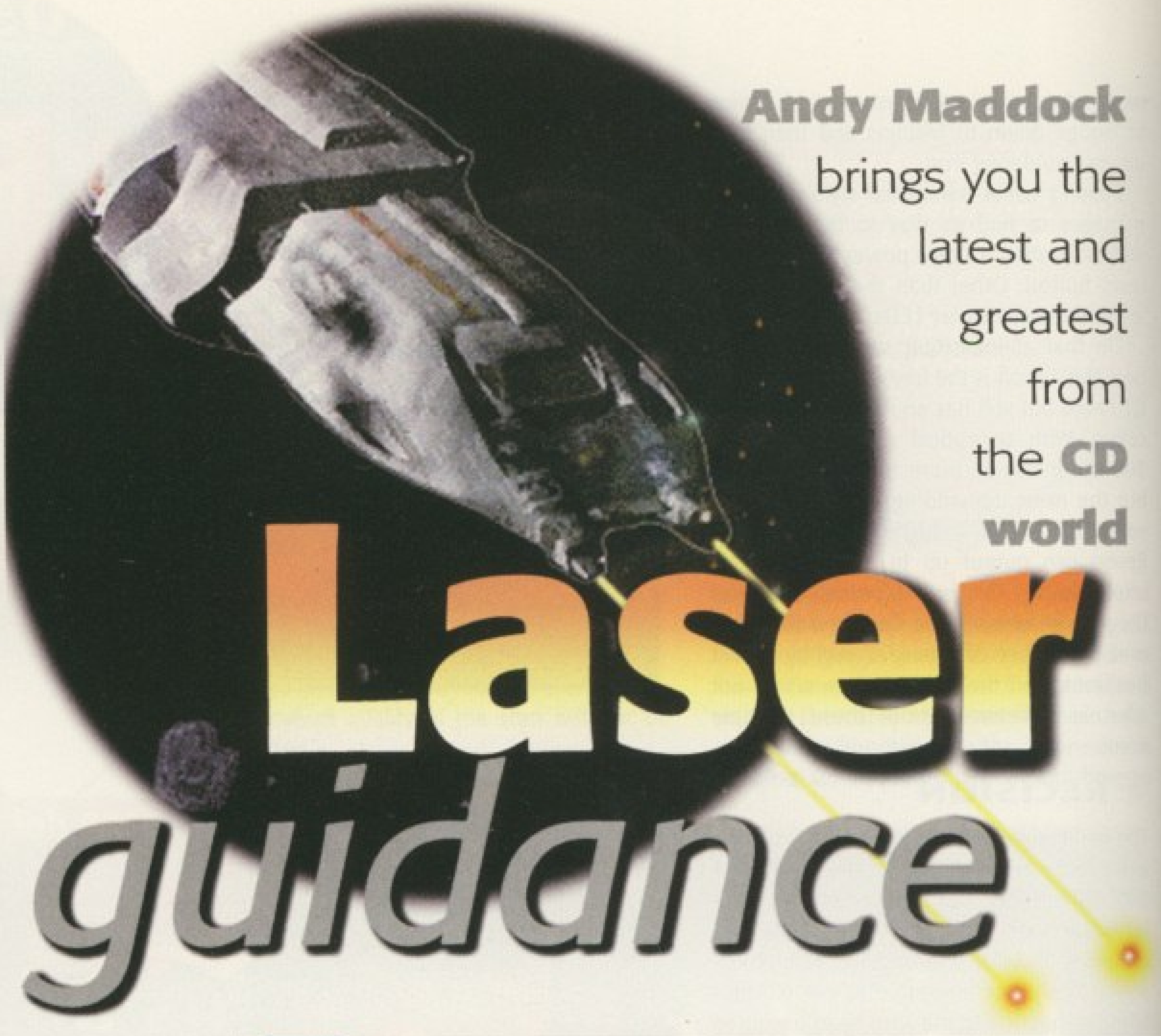
PRODUCT DETAILS

Product	Epson GT-5000
Supplier	Epson UK
Price	£399 + VAT
Tel	01442 61144

SCORES

Ease of use	90%
Implementation	95%
Value For Money	85%
Overall	90%

Laser guidance



Andy Maddock brings you the latest and greatest from the **CD world**

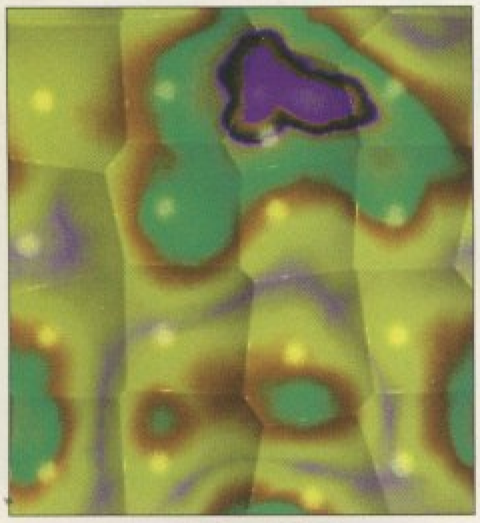
WEIRD TEXTURES



There's not really much I can say about this CD as the title says it all – it contains 1078 Weird Textures.

If you like to vary your desktop pattern from week to week or you indulge in a spot of DTV, you can use these textures. The CD comes with a small booklet/catalogue which you can flick through to find all the available textures without even touching the CD itself, so the process of finding one is probably the quickest and most efficient – it saves time loading up each of the 1078 textures one after another.

The textures are saved as IFFs and GIFs so are all accessible on the Amiga. If you want a CD with lots and lots of funny coloured backdrops then this is the one for you.



Exactly 1078 textures at your disposal – what could be better?

Bottom line

PRODUCT DETAILS

Product:	1078 Weird Textures
Supplier:	Ground Zero
Price:	£9.99
Phone:	0117 90767

SCORES

Ease of use	91%
Implementation	90%
Value For Money	88%
Overall	89%

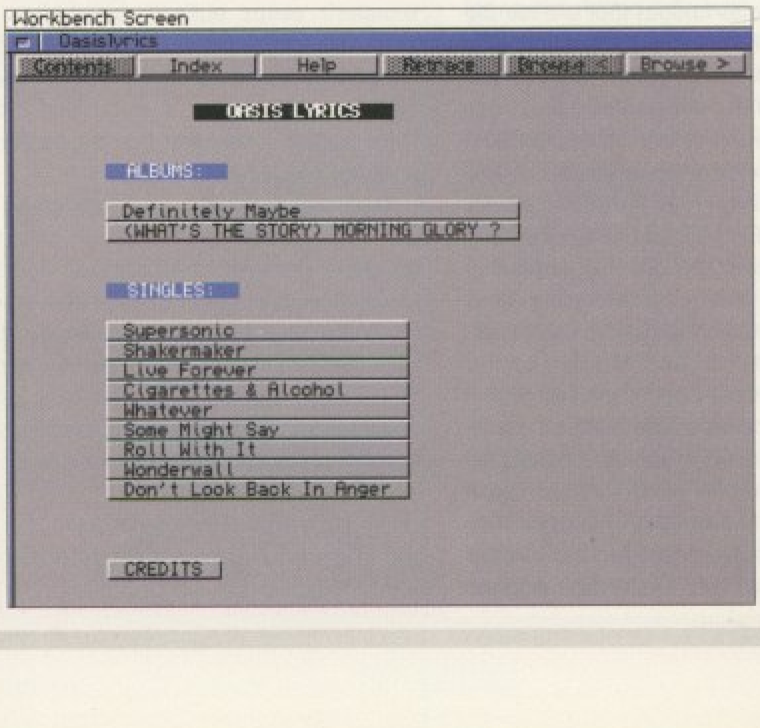
AGA EXPERIENCE VOL 2



I can remember Volume 1 of the AGA Experience CD and I think it was one of the better CD compilations. There were a lot of compilations out then which stood out, but the AGA Experience stood head and shoulders above the rest.

Basically, AGA Experience Vol 2 is just another collection of games, utilities, demos, pictures, slideshows, diskmags, text files, animations, fonts and all the other usual categories on a compilation. However, what stands out from all the rest is that the CD is AGA only which means the whole CD will be graphically superior to any other on the market.

Also, there is an exclusive directory on the CD which features programs and demos specially compiled for the AGA Experience. The companies who make an appearance are ClickBoom, OTM, Siltunna Software, Effigy, Team 17 and Guildhall Leisure – you may agree that these companies are, at the moment, the cream of



Oasis on an Amiga CD. Fantastic – you can hear sound samples and everything

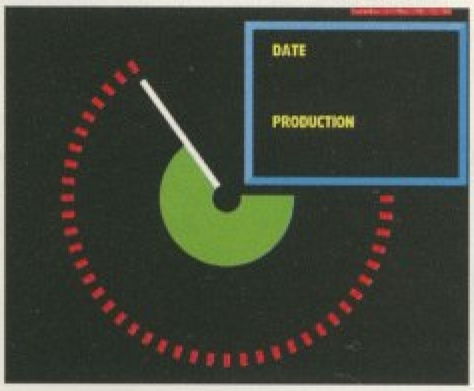
PHASE 4 – DESKTOP VIDEO DREAMS



Phase 4 is the fourth in the collection from EMComputergraphic. The last three DTP collections have all received scores of more than 90 per cent, but Phase 4 strays away from this, focusing instead on desktop video.

The CD contains everything you could imagine associated with desktop video. Whether you're a keen home movie maker or just want to add some professionalism, you will find something that will come in useful. There are background textures, fonts, sound effects and images to aid you in the presentation of your efforts. There are a large number of bitmap fonts with IFF previews and some come with an automatic installation script so you don't encounter any problems. For the actual presentation part there are many samples and modules which have all been tested, ensuring only the best quality musical offerings are included.

The last part of the actual creative side is the backdrops which range from 'never seen before' professional designed backdrops for a number of topics to some standard coloured ones such as Marble and Stones. To finish off, Phase 4 includes demos of some of the best products available including Optonica's Multimedia Experience, ImageVision and, of course, Dpaint5.



There are various animations included on the CD and this is one of them

It all adds up to being one of the best DTV CD packages around today, not to mention the future. This is undoubtedly the best Phase CD yet.

Bottom line

PRODUCT DETAILS

Product:	Phase 4 – Desktop Video Dreams
Supplier:	EMComputergraphic
Price:	£39.99
Phone:	01255 431389

SCORES

Ease of use	91%
Implementation	90%
Value For Money	89%
Overall	92%

the Amiga games industry. You will find demos of Capital Punishment, Alien Breed 3D 2, XTR and Pinball Prelude amongst other recent delights.

The other categories basically feature everything you'd expect, and although this may sound stupid, the CD is very Amiga oriented. When you click on the images directory you won't find pictures of ancient Egypt or some cute cats, you'll find ones of the new Power-up board and the fairly new Walker with its old casing.

The CD is an absolute must for Amiga enthusiasts and almost everything included will be useful. It doesn't matter if you are a serious user or not – this CD is just the ticket to give your AGA chipset something to do.

Bottom line

PRODUCT DETAILS

Product:	Product: AGA Experience Vol 2
Supplier:	Sadeness Software
Price:	£18.99
Phone:	01263 722169

SCORES

Ease of use	90%
Implementation	90%
Value For Money	89%
Overall	90%

SFX 2



Although releasing a sound effect CD may seem a little weird, it's actually a good idea. Okay, so it may not have great demand as an image CD but there are a handful of owners who delve around into the artistic and creative sides of the Amiga apart from graphic artists.

The majority of users, especially budding musicians, will appreciate a music CD containing instrumental sounds for use with Amiga modules. But SFX is different. It contains hundreds of samples of absolutely anything, including the usual alarm/bell noises, door creaks and voices.

You can play the samples back at either 8- or 16-bit, but there is one problem. The CD was originally designed for the PC so you will have to ignore the .EXE file extensions lurking around and, also, the samples are, of course, recorded in .WAV format, so again the PC's limitations shine through as the eight character filename allows you to be hopelessly lost in a world of effects.

Luckily, SFX comes with an Amiga floppy disk which fixes these problems, but you will still come across a few limitations with it being originally designed for the PC.

If you're after some sound effects covering all the usual topics such as dogs, cats and people, amongst hundreds of other things, then it's almost certainly a worthwhile purchase – as long as you can find a use for them.



You can search the entire contents of this CD through this simple but awkward menu system

Bottom line

PRODUCT DETAILS

Product:	SFX 2
Supplier:	Legendary Distribution
Price:	£TBA
Phone:	+00 519 753 6120

SCORES

Ease of use	85%
Implementation	83%
Value For Money	N/A
Overall	85%

NETNEWS OFFLINE



The Newsgroups on the Internet have been one of the most popular places for passing on information about certain subjects. It's basically a worldwide notice board which allows you to 'pin up' your messages for everyone to read and then they can either reply to it or throw it away – it's as simple as that.

Over the last few months, the various Amiga Newsgroups have been over populated with people asking about Amiga Technologies and VIScorp, amongst other topics. NetNews Offline allows people to access these questions and answers written by these regular attendees to see what's been going on recently.

The CD contains postings from the popular comp.sys.amiga group as well as a number of others including foreign ones. Overall, there are over 200,000 articles included and to read every single one would take quite long time.

You have to bear in mind that some of them may not even be worth reading because they may not be relevant to anything, some of them are foreign so you probably won't understand them, and they're all out of date – so is it worth it?

If you are willing to spend £14.95 to catch up on old news, then you might as well get yourself an Internet connection and read the latest ones. I can guarantee that the postings change almost everyday which means you have to have your finger on the pulse to find out what's really happening. Oh, and remember – no news is good news.

Bottom line

PRODUCT DETAILS

Product:	NetNews Offline
Supplier:	GTI
Price:	£14.95
Phone:	+49 617 185 937

SCORES

Ease of use	84%
Implementation	80%
Value For Money	85%
Overall	85%

ARCADE CLASSICS PLUS



Epic Marketing has decided to re-release Arcade Classics with a completely new menu system which makes it far better than the original release. The games on the CD are the same as the original so it still includes classics such as Donkey Kong, Frogger, Defender, Breakout, Galaxians and Invaders. Basically, the CD features variations of the now dated video games, so don't expect them to be original in any way whatsoever – they're merely re-creations.

If you want to reminisce about the old days then there is no better way. Buy it today.



Re-live all your favourite gaming moments by laying your hands on this excellent CD

Bottom line

PRODUCT DETAILS

Product:	Classics Plus
Supplier:	Epic Marketing
Price:	£14.99
Phone:	0500 131486

SCORES

Ease of use	88%
Implementation	89%
Value For Money	87%
Overall	89%

HOTTEST 6



Hottest 6 is the next in the series of PD and shareware collections for March 1995 to February 1996, which means all the good quality software from just under a year will be here.

The CD uses one of those amazingly user-friendly menu systems by listing the entire catalogue in a vertical column, and if you click on something that takes your fancy you will be treated to a brief but informative account of what the software is and how many disks it will need during the DMS process. Some of the software can be extracted via Lha command directly into your RAM directory, but the majority of it will require extracting straight to a floppy disk.

The content varies from games, utilities, music disks, demos, clipart and more. The catalogue isn't really divided up into any specific categories so the best you can do is scroll through the listing and see if there's anything that looks worthwhile. It is possible to search through the catalogue but it will only search the title and not the description.

The content isn't really of an amazing standard but there are quite a few programs which will appeal to any Amiga user such as the Workbench utilities.

Overall, Hottest 6 contains an even balance between the more serious software and other programs such as a Witches Cookbook and Rock-a-Doodle Colouring Book. In my mind this is a perfect CD for the average Amiga owner who's after a bit of everything.

Bottom line

PRODUCT DETAILS

Product:	Hottest 6
Supplier:	PD Soft
Price:	£14.99
Phone:	01702 466933

SCORES

Ease of use	88%
Implementation	89%
Value For Money	88%
Overall	89%

Late Night Opening Wednesday & Thursday till 7.30pm

Open Sunday 11am to 4pm

FIRST COMPUTER CENTRE

HOW TO ORDER

Order by telephone quoting your Credit Card Number. If paying by cheque please make payable to: "FIRST COMPUTER CENTRE" In all correspondence please quote a Phone Number, Post Code & Dept. Allow 5 working days cheque clearance

SHOWROOM ADDRESS: DEPT. AC, UNIT 3, ARMLEY PARK COURT, STANNINGLEY RD, LEEDS, LS12 2AE

Lombard Tricity low rate finance available.

LOW COST DELIVERY

- 2-4 Week Days £3.50
- Next Week Day £5.95
- Saturday delivery £10.00

Delivery subject to stock availability

- All prices include VAT @ 17.5%
- Large showroom with parking
- Multi-million pound company
- Overseas orders welcome
- Educational purchase orders welcome

OPEN 7 DAYS A WEEK

Prices are correct at the time of going to press. Please check our latest prices before ordering. All sales are subject to our standard terms & conditions(copy available upon request). E&OE.

Telephone 0113 2319444

24 HR MAIL ORDER SERVICE FAX: 0113 231-9191
NEW! BBS Sales & Technical line Tel: 0113 231-1422

AMIGA REPAIR CENTRE

We offer a FREE quotation on your Amiga or any peripheral (monitors, printers etc). A delivery tariff of just £5.00 is charged or alternatively you can visit our showroom. We can also arrange a courier pickup at an additional cost of £11.00.

E-Mail sales@firstcom.demon.co.uk
www.demon.co.uk/firstcom

EASY ACCESS FROM M62, M1 and the A1

FIRST COMPUTER CENTRE · KIRKSTALL RD · LIVING WORLD · FARNELLS · A64/A58 · LEEDS CITY CENTRE · N · BRADFORD · MIKE'S CARPETS · A647 · ARMLEY · ARMLEY GYRATORY · M62/M621

From M62East Join M1 From the M1 follow signs onto M621. Take A643 Elland Rd turnoff from M621. Follow signs for A58. This merges with the Armley gyratory. From M62West Junction 27, A62 to Armley gyratory. From the A1 take the turnoff for A64. This merges with the A58 (by-passing town centre) which meets Armley gyratory.

Hardware

Offer Price — **UK'S cheapest Amiga's A1200 MagicPack**
Includes, Wordworth V4SE, Datastore, Organiser, Turbocalc 3.5, Personal Paint V6.4, Photogenics 1.25E, Pinball Mania & Whizz.
Special limited offer...... **£299.95**

Amiga A1200 Magic Pack Inc. 170Mb HD & Scala MM300
Includes same software pack as Magic Pack, But also includes Scala MM300(Req. 4Mb).
£469.95

Amiga A1200 Surf Pack Inc. 260Mb HD & 14.4 Modem
Includes, All the Magic Pack software, plus the latest Comms and Internet access software designed for the Amiga. All this for only
£559.95

AMIGA **M1438S** Monitor Only!! *£285.95 When bought with a computer

First Starter Pack
- A1200 dust cover
- 10 x DSDD disks + labels
- Top quality joystick
- Deluxe mouse mat
- 3 x A1200 games

All for only £19.95

AMIGA A4000T 68040-25Mhz
- 1.2 Gig SCSI Hard Drive
- 6Mb of 32-bit Ram
- Scala MM-300 Installed
- Kickstart 3.1

£2089.95

CD ROM Drives

RENO Portable CD ROM — NOW ONLY £99.95
- SCSI-2 connector
- 330k/sec data transfer,
- Battery or Mains powered
- Kodak multi-session CD
- Stereo headphones supplied
- 180ms Access Time
- Audio CD operation buttons

Req. SCSI interface **£99.95**

HP CD-R 4020i
CD-Recorder 4x read/2x write
Tomorrows technology today **£790.95**
74 Min. Media
10 off £64.99 100 off £575.99
Master-ISO CD-R software
Create your own CD ROM's and CD-Audio discs, on your Amiga. Call for details £129.95

Amiga Technologies 1241 Q-Drive Quad Speed
Quad speed external CD-Rom Drive, for A1200, via PCMCIA. No additional Interface required. Only...£199.95

Internal SCSI CD ROM drives
A4000 compatible CD ROM drives
Toshiba 5401B x4 Speed £141.95
Toshiba 3701B x6.7 Speed £232.95
Toshiba drives are shorter than std. drives & so fit inside the A4000 case.

SCSI Controllers
Squirrel SCSI-II Interface *£45.00
*When bought with any HD/CD ROM drive, £54.99 if bought separate
Surf Squirrel SCSI-II Interface *£79.95
GVP 4008+ / Oktagon SCSI controllers £99.95
SCSI-II/RAM Interface cards for big box Amiga's, A4000/A2000 etc.

Hard Drives

3.5" Hard Disk Drives with A1200 install kit
(We recommend 3.5" drives be fitted by qualified computer engineers)
inc. software, cables and instructions
630Mb....£155.95 850Mb...£189.95
1.08Gig..£219.95 2.1 Gig..£299.95

2.5" Hard Drives for A600/A1200 with installation kit
inc. software, screws, cables and instructions
Seagate CONNER
80Mb.....£84.95 120Mb.£99.95
170Mb.£104.95 250Mb.£109.95
340Mb.£129.95 540Mb.£169.95
810Mb.£214.95 1.0Gig.£339.95

External Hard Drives for all SCSI aware Amiga's
500Mb £199.95 1.0Gig £314.95
Inc. High quality SCSI-II Quantum mechanism with a 10ms access time, Internal PSU, SCSI ID selector, Cooling fan, and HD prepping/partitioning software. Requires SCSI interface, ie. Squirrel/GVP additional adaptor may be req. @ £15.95

3.5" H.Drive install kit £18.95
Includes set up software, cables and full instructions, no Hard Drive.

Monitors

AMIGA M1438S Amiga Branded Monitor
Same specification as the Microvitec 1438, but also has Stereo speakers. **£295.95**

Microvitec 1438 monitor without speakers £264.95
Extra adaptor may be req. £6.99

Amitek 1084 S £199.95
14" Colour CGA Stereo Monitor, Composite Video, Digital RGB, Analog Inputs.

Monitor dust cover £6.95

Disk Drives

Zip Drive
- Includes:-
- Zip Tools software
- 1 X 100Mb cartridge
- Additional 100Mb Zip cartridges £15.99

£185.95
- SCSI interface required
- Additional adaptor may be needed at £15.95.

Zip tools separately £16.95

Syquest EZ-135 £194.95
additional media £17.95

Amiga Ext. drive £49.95
A1200/600 int. drive £39.95
A500/500+ Int. drive £39.95

Squirrel I/face

SCSI Surf Squirrel
- Hi speed serial port
- SCSI-II interface
- Autobooting HD

from *£79.95 *If purchased with any modem
If purchased separately £99.95

Squirrel
- SCSI-II interface

From only *£45.00 *If purchased with SCSI device
£54.95 if purchased separately

Modems

SupraFAXModem · USRobotics

Sportster Vi
- Class 1 Fax
- Personal Voice Mail
- Fax on Demand
- Call Discrimination

BABT Approved
- 14,400 Data/14,400 Fax £98.95
- 33,600 Data/14,400 Fax £161.95

SupraFAXModem 288
- Up to 115,200bps (v42bis)
- Silent & Adaptive Answer
- V34 Standard
- NComm Software
- Class 1 & 2 Fax
- Unique LCD Display
- Flash ROM
- 5 Year Warranty

BEST BUY — only £188.95

SupraExpress 288
Only £153.95
- LED Display
- V34 Standard
- NComm Software
- Class 1 Fax
- 5 Year Warranty
- Up to 115,200bps (v42bis)

Supra modems are not BABT approved, however they perform as well & often out perform BABT approved modems. Supra Modems have a 5 year limited warranty

Courier V34+
If you thought V32bis was fast try V34
£235.95 BABT Approved
33,600 bps.

GP Fax Software £44.95
Full Send and Receive Fax Software for Amiga Computers with a Fax/Data Modem.

RAM Expansion/Accelerators

PRIMA A1200 RAM Expansion

A1200 1 MB RAM Special price!!	£69.95
A1200 2 MB RAM	£74.95
A1200 4 MB RAM	£92.95
A1200 8 MB RAM	£127.95
A1200 1MB/33Mhz Co Pro	£99.95
A1200 2 MB/33Mhz Co Pro	£109.95
A1200 4 MB/33Mhz Co Pro	£127.95
A1200 8 MB/33Mhz Co Pro	£162.95

MASSIVE PRICE REDUCTIONS

1 Mb 72 Pin SIMM	£19.95
4 Mb 72 Pin SIMM	£35.95
8 Mb 72 Pin SIMM	£69.95
16 Mb 72 pin SIMM	£164.95
1Mb 30 pin SIMM	£19.95
256x4 DRAM	(each)£6.95

Accelerator Cards
POWER VIPER
Blizzard/Viper II-50 £199.95
Up to 128Mb RAM, FPU Socket & R/T clock
Viper II-28 £119.95
Up to 128Mb RAM, FPU socket & R/T Clock
Falcon 68040-25 £379.95
68040RC 25Mhz CPU, Heat Sink Included.

A500/600 RAM Expansion
PRIMA A500 512k RAM no clock £19.95
PRIMA A500+ 1 Mb RAM £29.95
PRIMA A600 1 Mb RAM no clock £29.95

Part exchange available on your old memory.

Printers

Canon
Canon BJ30 £169.95
Portable mono printer, 30 page ASF built in.
Canon BJC70Colour £223.95
Portable colour printer, 30 page ASF.
Canon BJ200ex £183.95
High quality mono printer, virtual 720 dpi.
Canon BJ210 £187.95
Mono printer, 720x360dpi, col. upgradeable
Canon BJC4100Col. £256.95
High quality col./fast mono printing 360 dpi.
Canon BJC610 Colour £410.95
720 x 720 dpi, near photographic quality

star MICRONICS
Star LC90 9 pin mono £104.95
ASF built in, push tractor optional.
Star LC100 9 pin Colour £118.95
180 cps draft, 45 cps NLQ, Amiga drivers.
Star LC240 24 pin mono £117.95
192 cps draft, with ASF built in.
Star LC240C 24 pin Col. £130.95
ASF built in, 4 LQ fonts.
Star SJ144 Colour £225.95
Colour thermal transfer printer, low running costs, 3 p/p/m mono, 1.4 p/p/m colour.

CITIZEN COMPUTER PRINTERS
All Citizen printers have a 2 year warranty
ABC Colour printer £135.95
Simple (as easy as ABC) to use 24 pin printer. Comes as standard with 50 sheet Auto sheet feeder. Tractor feed optional at £34.99
Citizen Printiva 600c £379.95
600 dpi colour, 1200 dpi mono printer, Dedicated Amiga driver software, use's advanced Micro Dry print Technology.

HEWLETT PACKARD
HP340 Portable £220.95
Colour upgradeable portable printer
HP600 £189.95
Colour upgradeable mono inkjet/ Col. Kit £34.95.
HP 660 Colour £284.95
New colour inkjet from HP.
HP850 Colour £423.95
600x600 dpi up to 6 p/p/m mono, 3p/p/m colour
HP 5L Laser printer £436.95
4 p/p/m 600 dpi
HP 5P Laser printer £743.95
6 p/p/m 600 dpi

EPSON
Stylus Colour II £291.95
720 dpi, 4ppm Black, 2ppm Colour.
Stylus Colour IIs £196.95
720dpi, 2.5ppm Black, 1ppm Colour.
Stylus 820 £169.95
720 dpi, 2.5ppm Black, Colour Upgradeable.
Stylus Pro £445.95
720x720 dpi, Photo-Real quality output.
Epson LX300 £124.95
9 Pin Dot Matrix, Colour Upgrade Kit £34.95
Epson LQ300 £139.95
24 Pin Dot Matrix, Colour Upgrade Kit £37.95

Miscellaneous

Printer Switch Box 2 way	£12.95
Printer Switch Box 3 way	£17.95
Printer Stands (Universal)	£4.95
1.8 Metre printer cable	£4.95
3 Metre printer cable	£6.95
5 Metre printer cable	£8.95
10 Metre printer cable	£12.95
Parallel port ext. cable	£9.95

Studio 2 New version 2.11
"If you want to get the best possible results from your printer, get a copy of Studio".
£49.95 or £44.95 when purchased with a Printer.

Consumables

Ribbons

Citizen Swift/ABC mono	£3.95
Citizen Swift/ABC colour	£12.95
Star LC90 mono ribbon	£4.95
Star LC10/100 mono	£3.65
Star LC10/100 colour	£7.95
Star LC240c colour	£13.95
Star LC240c mono	£8.95
Star LC240 mono	£5.95
Star LC24-10/200/300 Colour	£13.95
Re-Ink Spray for mono ribbons	£11.95

We stock a wide range of consumables for all Lasers, Dot Matrix and InkJets old and new.

PREMIER-INK Cartridge Refills
Save a fortune in running costs with your ink/bubble jet. Compatible with the HP Deskjet series, Canon BJ10/20/80/130/200/300/330, Star SJ48, Citizen Projet and many others. Full range of colours avail.

Single refills	(22ml)	£6.95
Twin refills	(44ml)	£12.95
Three colour kit	(66ml)	£19.95
Full colour kit	(88ml)	£27.95
Bulk refills	(125ml)	£24.95

Printer repair specialists. Free quotes available

Ink Cartridges

Canon BJ10/Star SJ48	£17.95
Canon BJ200/230	£18.95
Canon BJ30 (3 pack)	£12.95
Canon BJC 70 mono (3 pack)	£10.95
Canon BJC 70 colour (3 pack)	£17.95
Canon BJC 4000 colour (single)	£16.95
Canon BJC 4000 mono (single)	£6.95
Canon BJC 4000 mono high cap.	£28.95
Canon BJC 600e mono high cap.	£8.45
Canon BJC 600e colour	£7.95
Citizen Printiva Std. colours	£6.45
Citizen Printiva Metallic colours	£16.45
HP. Deskjet 500/550 Mono	£22.95
HP. Deskjet 500/550 Colour	£24.95
HP.Deskjet 660 double mono	£23.95
HP.Deskjet 660 colour	£25.95
Epson Stylus mono	£13.95
Epson Stylus colour	£27.95
Epson Stylus Col. II/S/820 Mono	£17.95
Epson Stylus Col. II/S/820 Colour	£24.95
Star SJ144 mono/colour (single)	£8.95

Paper

Fanfold (tractor feed) 500 sheets	£6.95
Fanfold (tractor feed) 1000 sheets	£12.49
Fanfold (tractor feed) 2000 sheets	£21.49
Single sheet 500 sheets	£6.95
Single sheet 1000 sheets	£12.49
Single sheet 2000 sheets	£21.49
Epson Stylus 720 dpi paper pack	£13.95
H. Packard Glossy Paper 10 Pack	£9.95
High Quality Inkjet Paper (500)	£9.95

Disks

Bulk DSDD
10 x £3.45 — 100 x £26.95
30 x £9.95 — 200 x £49.95
50 x £14.95 — 500 x £114.95

Branded DSDD
10 x £4.95 — 100 x £41.95
30 x £13.95 — 200 x £76.95
50 x £21.95 — 500 x £175.95

Bulk DSHD
10 x £3.95 — 100 x £29.95
30 x £10.95 — 200 x £55.95
50 x £16.95 — 500 x £129.95

Branded DSHD
10 x £5.95 — 100 x £44.95
30 x £15.95 — 200 x £82.95
50 x £23.95 — 500 x £189.95

Disk labels x500 £6.95
Disk labels x1000 £9.95

Video

Quantum

rombo

VIDI Amiga 24 (RT)+

Colour Real Time Amiga video capture system

- Composite & SVHS inputs.
- Time Lapse remote grabbing.
- BMP,TIFF & PCX File Support.
- Load/Save 24 Bit ILBM & Anims

£139.95

VIDI Amiga 24 (RT) Pro

Professional Colour Real Time Amiga video capture system

- Composite & SVHS inputs.
- 16.7 million colour grabbing.
- BMP, TIFF, PCX, ANIM, ILBM.
- Processing controls & effects

£224.95

Pro-GRAB SVHS 24RT Plus

- Compatible with VHS & SVHS.
- Save & load in multiple file formats
- Support for virtual memory
- Additional teletext facilities
- Large preview window

Req. kickstart 2.04 & 1.5Mb free memory

for only..... **£129.95**

Genlocks

hama

Genlock 290

- Full fading of mixed graphics
- 2 ergonomically designed faders
- High quality output signal
- Independant power supply

£639.95

Genlock 292

- Full fading of mixed graphics
- Fade to black of output signal
- Demonstration software inc.
- Independant power supply

£264.95

A-Cut

- Video edit controller
- Works on Kickstart 2.0 and above
- Scenes defined, sequenced/exchanged
- Independant power supply

£164.95

Fusion Genlock

- Comes with Scala HT100
- 92% Amiga Shopper June 95
- Composite only Genlock

Only!! **£95.95**

Entry level Genlock

Graphics

New!! Epson GT-5000

- A4 Flatbed scanner
- 300 dpi optical scan resolution
- 2400 dpi output resolution

£399.95

NB The Amiga range of computers req. additional driver software and a Bidirectonal parallel cable.

Epson GT-8500

£529.95

EPSON scanners

- Bi-directional Parallel & SCSI Interface
- A4 Flatbed scanner
- 400 dpi optical scan resolution
- 3200 dpi output resolution

Epson GT-9000

- Bi-directional Parallel & SCSI Interface
- A4 Flatbed scanner
- 600 dpi optical scan resolution
- 4800 dpi output resolution

£695.95

Epson Flatbed Scanner Software & Cable...**£49.95**

Hand Scanners

Power Scan v4. **£89.95**
256 g/scale on AGA Amigas, 64 g/scale non AGA

Power Scan Col. **£174.95**
24 bit colour scanner, 16.7 million colours

Graphics Software

New Photogenics 2 CD

24-Bit Graphics Manipulation

Requires 2chip/4 fast RAM minimum, Hard Disk & CD Rom Drive, K.start 3.0 or higher.

only!! **£89.95**

Cinema4D

£169.95

Amiga Ray-Tracing software

Req. 3Mb of RAM, and Kickstart 2 or higher.

Scala MM211

£139.95

- MM300 £224.95
- MM400 £274.95

Distant Suns

£27.95

Vista Pro **£27.95**

Music

Technosound Turbo 2 Pro

8/12 bit Stereo Sampler plus many more advanced features

A bargain at only **£27.95**

Mega-Lo-Sound

8 bit direct-to-disk sampler

Great value only.. **£25.95**

ProMIDI Interface

- MIDI in, MIDI thru & 2 x MIDI out
- Compatible with all MIDI software

only!! **£19.95**

- 2 x 3metre MIDI cables £9.99

AURA

100% Octamed compatible **£74.95**

12/16 bit stereo direct-to-disk PCMCIA sampler

New Octamed 6

Official CD

£24.95

Latest version of the best music making program for the Amiga. Over 600Mb of Midi files/Samples.

Wordprocessing

New!! Magic Publisher 4 CD Set **£44.95**
Inc. Wordworth 4 TD, Final Writer 4 SE, 10,000 Fonts, 5,000 Clipart, 150 Printer Drivers and more...

New Final Writer 5

Word Processor/Publisher

Latest version of this award winning software

only!! **£74.95**

New Final Writer Lite

Requires Kickstart 2.04 or above, 2Mb of Ram and 1 Floppy Drive, Hard Drive installable if desired.

£39.95

Mini Office

All in one package Integrated Package

- Wordprocessor
- Spreadsheet
- Database
- Graphics
- Disc Utilities

£38.95

New Wordworth 5

- Any Amiga 2.04 or higher
- 3Mb of Memory
- 2xFloppy drives or HDrive

£69.95

Home Office

Final Data

- Requires Workbench 1.3 or above, 1Mb of memory & 1 floppy drive.

£39.95

Twist 2

Relational Database

- Requires Workbench 2.1 or above & 2Mb of memory

£74.95

Spreadsheets

Final Calc

£94.95

- Requires Workbench 2.0 or above, 2Mb of memory min., H.Disk with 5Mb of free space

Home Finance

Money Matters 4 **£49.95**

Utilities

Opus 5

£49.95

New DiskMagic

£34.95 92% CU Amiga

Cables

Amiga-CD32 Serial Network cab.	£24.95
Amiga Parnet Parallel Network	£14.95
Modem Cable 9-25/25-25	£9.95
Null Modem Cable	£9.95
Amiga-VGA Monitor	£12.95
Amiga-TV Cable	£2.45
Amiga-CM8833 Monitor	£9.95
Amiga-Scart Cable	£9.95
Printer Cable (1.8 metre)	£4.95
Disk Drive/Monitor Ext.	£14.95
Analogue PC J.stick Adapt.	£7.95
Mouse/Joystick Extension	£4.95
Mouse/Joystick Autoswitch	£9.95
MIDI Cables (3 metre x2)	£9.95
Centronics-Centronics	£9.95
SCSI D25-50 way Cent.	£11.95
SCSI D25-50 way Micro-D	£15.95
SCSI Adaptors from..	£15.95
SCSI Terminators from...	£19.95
Internal SCSI Cables from..	£9.99
2.5" IDE Hard Drive Cable	£5.95
Amiga-3.5" Hard Drive	£18.95

Custom Cable Suppliers

For all your custom cable requirements just give us a call, we can usually supply most cables next working day.

Peripherals

Wizard 560-dpi Amiga Mouse **£12.45** Black or Beige

Alfa Data 400-dpi Mega Mouse **£11.45**

3 Button Mega Mouse Plus **£12.95**

AlfaData Crystal Trackball Only...**£34.95**

Amiga PSU **£34.95**

Amiga Modulator **£34.95**

Mousemat 4mm	£2.49
Zip Stick joystick	£9.95
Gravis Amiga joystick	£19.95
Roboshift mouse/joystick switch	£9.95
Amiga Contol Pad	£9.95
Kickstart 2.04/2.05	£24.95
CIA 8520A I/O chip	£18.95
FPU 25mhz PLCC	£34.95
FPU 33mhz PLCC	£39.95

Zydec Speakers

ZyFi-2....**£26.95**

ZyFi Pro..**£57.95**

Turbotech R/T Clock Cartridge

£14.95 Fits all Amiga's

Amiga CD ROM's

Delivery £1.18 per title or £3.95 for 4+

New!! 3DCD-1 Objects	£8.95
New!! 3DCD-1 Images	£8.95
17 Bit Phase 5	£14.45
17 Bit/LSD compendium 1/2/3	£16.95
New!! Aminet 12	£12.45
Aminet 9/10/11	£12.45
Aminet collection(1-4)	£24.45
Aminet collection2(5-8)	£24.45
Amos Users CD PD Ver 2.	£16.95
New!! Artworx	£8.95
New!! Assassins 2 (Double)	£17.45
BCI Net 1/2	£8.95
New!! C64 Sensations II	£16.45
CAM (Double)	£22.45
CDPD 1,2,3 or 4	£5.95
Demo CD 1 or 2	£5.95
Eric Schwartz CD	£24.95
New!! Emulators Unlimited	£17.95
New!! Encounters UFO Phenomen.	£12.95
Global Amiga Experience	£22.95
Groliers Encyclopedia 2	£19.95
Illusions in 3D	£8.95
New!! Magic Publisher 4 CD Set (Inc. Wordworth 4 TD, Final Writer 4 SE, Plus more..)	£44.95
Meeting Pearls 3	£8.95
MultiMedia ToolKit 2 (2xCD's)	£19.95
Network 2 CD	£12.45
NFA AGA Experience 1/2	£17.95
Octamed 6 CD	£24.95
New!! Photogenics V2 CD ROM (New features inc. Animation Support, New Effects System, Virtual Imagesd Plus lots more..)	£84.95
New Price!! Prima CD Vol. 1	£9.95
Sci-fi Sensations	£17.95
New!! Sounds Terrific Vol. 2	£16.95
Speccy Sensations II	£17.45
New!! Special FX Vol. 1	£26.95
Ten on Ten pack (10xCD's)	£37.95
UPD Gold CD (4 x CD's)	£24.95
WPD Hottest 6	£17.95
Weird Science Fonts/Clipart	£8.95
Weird Science Animation	£16.95
New!! World Info 95	£19.95
New!! Workbench Add-Ons	£22.95
New!! Zoom II	£18.95

FREE!! Prima Shareware CD-ROM worth £10 with every order of CD-ROM software over £30

Special Offer

Blitz Basic

Blitz Basic2.1

Popular BASIC programming language for all Amiga's

Special offer **£29.95**

Special Offer

Citizen ABC

As easy to use as ABC 24 pin colour printer

Usual price £145.99

Limited special offer price only!! **£135.95**

Special Offer

Vista Lite-3

Vista Pro Lite

Requires 2Mb of Ram & Hard Disk With Kickstart 2.04 or above.

£14.95

Limited Offer

Special Offer

Music-X v2

New Ver. 2, Incorporating Notator-X and Music-X modules.

RRP £34.95

Special offer **£29.95**

Spin cycle

A new generation of octal speed CD-ROMs has just hit the streets, and **Neil Mohr** sees if they are as good as they claim

Whenever you put products head to head there always seems to be this need to run some sort of benchmark to give tangible evidence that one product is superior to the other, rather than just relying on our opinion of which seems better.

In the case of these octal CD drives, however, there really seems to be no point. The usual way is to run Sysinfo and jot down an average from the various figures it spews up, but in the case of *all* the octal drives, they return the obvious figure of 1200Kb a second, with only a few K either way.

In general, these CD drives are so fast that directory listings come up as fast as you would expect from a hard drive, and in fact they out perform an A1200 hard drive by quite a large margin. This makes trying to do any test figures for these sort of things very tricky.

A good way to show just how fast these drives are is if you do a search for mods using the Aminet find program. The AmigaGuide with the search results in appears in about a second – now that is fast.



GoldStar GCD-R580B

Price: £129 + VAT

GoldStar is a fairly new electronics company with a good reputation for producing low-cost, feature-packed consumer electronic equipment, and this octal speed CD drive is no exception. The best of all the drives, the GoldStar comes in a pleasantly packaged full colour box. The drive itself seems to be one of the sturdily built, and the front loading tray includes flip-out tabs to keep a loaded CD in place, allowing the unit to be used on its side. It has the usual analogue and digital sound output and, as with many of the other CD drives, has extra audio CD controls on the front so you can play audio CDs without the need for a software audio player on your computer.



Hitachi CDR-7930

Price: £110 + VAT

With Hitachi being one of the most well known electronic companies, you may have thought that its drive would be one of the best. However, the poorly packaged drive that came with just a single PC disk has the most 'tinny' feel to it of all the drives in the roundup. It has the expected analogue and digital sound output, along with the expect headphone output with volume control.



ATAPI CD-ROMS

It seems, and in reality it is, that technology marches to the beat of the PC drum. Consequently, all but one of the eight speed CD-ROMs we have reviewed are what is known as ATAPI devices, which means they interface with your computer using the normal IDE interface found in your A1200 or A4000. You will also be glad to know that your Amiga can make use of these low cost ATAPI CD-ROMs.

As you might have already guessed, you cannot just buy yourself an ATAPI CD-ROM, plug it into your Amiga and expect it to work. Before you can do this you will need to get hold of an ATAPI device driver. This may sound a little scary but once you have got hold of the correct software, setting your Amiga up to use an ATAPI device is very straightforward.

A commercial solution comes in the shape of AsimCDFS 3.5 which is available from Blittersoft. This is a complete set of CD-related tools and utilities that, with an easy installer, lets you get a SCSI or ATAPI CD-ROM drive working as quickly and simply as possible.

If you are not looking for the complete suite of tools that AsimCDFS provides, a number of quick and easy public domain solutions are available, one of which can, handily, be found on this month's coverdisk.

Once you have the software, all you need is the CD drive and the correct lead to connect everything up. If you own an A4000 then as long as you only have a single internal IDE hard drive you will be able to put in your new ATAPI CD drive and connect it up, making sure the ATAPI CD drive is set to slave and your internal IDE drive is set to master.

A1200 owners have a few problems. To start with the A1200 IDE connector is built for a 2.5" drive, but all the ATAPI CD drives expect a 3.5" connector. Therefore, you are going to have to get a special lead made, or get an adaptor. You will also need an external drive that comes in a proper box with its own power supply.

PLEXTOR – 8PLEX

PRICE: £349 + VAT

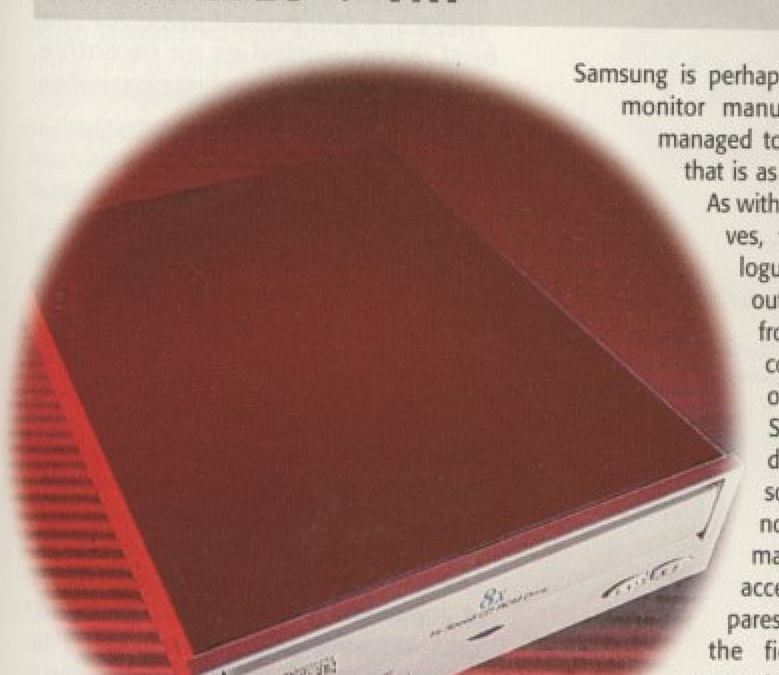
The Plextor is the only octal speed SCSI CD drive that we could get for this roundup. It is reasonably well constructed, even though it only has analogue sound output. There are the extra audio CD controls on the front of the drive that can be found on most of the other CD drives, and it does come with a comprehensive manual explaining how to set up the SCSI chain. My major complaint is that it uses caddies. They do allow you to use the drive on its side, and should extend the life of your CDs, but they are a pain, especially if you lose one. The Plextor is available in an external box, and with an average access time of 115ms, is the fastest drive out of the five, even though you may have a hard time noticing the difference.



"These CD drives are so fast that directory listings come up as fast as you would expect from a hard drive, and in fact they out perform an A1200 hard drive by quite a large margin"

SAMSUNG SCR-803

PRICE: £129 + VAT



Samsung is perhaps better known as a monitor manufacturer and it has managed to produce a CD drive that is as good as its monitors. As with most of the other drives, you have both analogue and digital sound output and the handy front panel audio CD controls. Unlike all the other CD drives the Samsung has a 128Kb data buffer, but even so there seems to be no difference in performance. It has a 145ms access time that compares well with the rest in the field, and Samsung seems to be the only company that has tried to add any sort of styling to the front of the CD drive, with oval style buttons and busy LED.

AZTECH – ZETA

PRICE: £119.95 + VAT

Aztech is not exactly the most well known company in the world but it has managed to put together one of the cheapest octal speed CD drives currently around, which still provides all the features of the other drives. Both analogue and digital sound outputs are available at the back, along with a head phone socket, volume control and the seemingly obligatory audio CD controls on the front.

The only oversight on behalf of the CD casing is the lack of any labelling on the three jumpers that let you select whether the drive should be set to master, slave or CSLE. This means that if you do have to change the setting you will have to dig out the manual – that you have probably lost. The Aztech also has the slowest seek time at 235ms, and even though it still has a transfer rate of 1.2Mb/s, this means directory searches are marginally slower than most of the others.



DYING, BUT NOT DEAD

I am a former Amiga user and subscribed to Amiga publications before I even got my Amiga. I still have the magazines, but I sold my Amiga. I had one of the first 3000 Towers in the area, put 10 Megs of RAM on it (8 fast, 2 chip) and instantly I was *the* power user of the Amiga user group I frequented. I loved my Amiga and dreaded the day I had to sell it. I got Maybe 1/5th of the price I paid, and I cheated and got the educational discount. Now I own a Pentium-133 machine, 2.4Gigs of HD, 32Mb RAM, running Windows 95. I'm using a 1024x768x 16-bit colour display, a NEC 17" monitor and am connected via PPP to the Internet via local ISP. My sound card has wavetable synthesis (AWE-32), and everything works great.

I'll admit that Workbench 3.1 was a better OS, and the Amiga's custom chipset was *much* better than any Intel triton, endeavour or whatever, but I've got to say this, pain me as it does – the Amiga is dying. Not dead... yet. I'm not Amiga-bashing, but look, Commodore goes bankrupt; the company that bought the Amiga technology (Escom), who promised it would market and sell the thing during negotiations, flaked out. So what's worse? A company that doesn't develop very often and has poor customer service or a company that does *not* develop and does *not* even sell the thing? The third-party manufacturers can keep the boat floating for a while, but without the support of the mother-company, it's dead.

Yes I saw the 'Walker' prototype spread. Very nice. I really hope that's where the Amiga is heading. It's time for a new machine. Honestly, I would buy one again if the support was there, but I've been hearing for about two years now how everything is going to 'bounce back', and I really think there should be less 'patting ourselves on the back' for owning such a spectacular machine, and more development and products being made for it. If there were a development library for the Amiga, I'd buy it. But there isn't, and that's why I bought the Microsoft Development kit.

Richard Langis Jr.,Hillsboro, Oregon, USA

It's a sorry state of affairs alright, and I'm surprised we haven't had more letters like this one. I'm sure there are a lot of Amiga owners out there who are carefully thinking about doing the same as you have done, but hold on just a second. Are you doing things on your PC that you could just as easily be doing on your Amiga? There are an awful lot of people who end up getting rid of their Amigas, only to find out that they could have saved the money they spent on a PC that will be obsolete in six month's time.

REDESIGNING THE AMIGA

A lot has been said about what the Amiga platform has accomplished and where it may be heading. In my experience with a number of platforms, I have found that none is as reliable as the Amiga. As I have told a number of my colleagues throughout the years, the Amiga, if supported as other platforms have been, could become a very competitive computer again.

Take its operating system, for instance. As simple as AmigaDOS is, it can still run efficiently powerful programs and hardware like the Video Toaster, LightWave 3D, Brilliance, Photogenics, Final Writer, Deluxe Paint, etc. Take into account that the Amiga can run these and other programs with minimal resources, with 4Mb of FastRAM and, in some cases, without a hard drive, and the speed in which many of its graphics can be displayed on-screen. What other consumer platform can display animations, with various resolutions and colour depths, in real-time? Platforms like IBM and Mac cannot accomplish this without special add-on display cards and fast processors.

One thing I would like to add is what a number of editors have addressed as competitive redesigns to the Amiga. Many people have expressed how the Amiga should lose its custom chipset and I know the chipset does not allow IBM-like resolutions (i.e. 1024x768), but I am sure this can be added in the near future. Small computers like the A500, A600, and A1200 cannot easily adapt themselves with 24-bit cards that allow resolutions like these, but I am sure a redesigned ROM and chipset would be able to. After all, has anyone asked or recommended SGI to abandon its graphic co-processors? Yes, both the Amiga and Silicon Graphic workstations have graphic co-processors and SGI's can display high resolutions. Why can't the Amiga be designed to accomplish this?

The last thing I would like to say is a prediction that if Escom and Amiga Technologies can take the Amiga seriously, the Amiga can once again be a competitive system in the industry. The Amiga is powerful out of the box. Think about it. Add a RISC processor, on-board memory expansion to 128Mb of FastRAM, a more powerful chipset with higher colour depths and resolution, built-in 16-bit sound, with a refined operating system, and you will have the makings of a true Amiga workstation. In my field of computer graphics, I think a RISC-based Amiga workstation would have what it takes to go up against any SGI, Sun, or Dec computer system.

LeRoy Parham, Jr., Clinton, Maryland, USA

It's a nice idea and I particularly like the notion of telling SGI to lose its custom chips. However, as has been said before in this column, custom chips take a lot of money, time and expertise to develop – all commodities which the Amiga Development team is in short supply of. The solution, at least in the short term, is to take an off-the-shelf chipset and work on software to drive it. This way Amiga Technologies can rely on the vast amount of experience that people like Orchid, SPEA, Diamond and others can bring to its designs. It's all very well asking for a new chipset but how long do you want to wait for this new Amiga, and, more importantly, how much do you want to pay for it?

Keep your letters coming in to **Ezra Surf** and you could be a fifty pound prize winner



Keep those letters coming! If you can't be bothered to find a bit of paper and a stamp, why not e-mail us? Simply point your mailer to: ESP@acomp.demon.co.uk There's a £50 pound prize for the best letter printed as an incentive

KEEPING BOTH SIDES HAPPY

As an avid Amiga user for ten years now it is good to see the Amiga back! It is also sad to know that it will die. Harsh but true words. The Amiga has one major problem and it's the same problem it had in 1985. Would you recommend to your friend that he or she buy an Amiga? The answer should be "No" even if you're a die hard Amiga addict.

Let me tell you why, if you don't already know. Amiga users are the most computer literate in the world, but most people are not computer literate at all. So how do they use a computer that in their eyes has no support and no popular software titles? Answer: they don't.

How do we then sell Amigas to the 99 per cent of the world that has never heard of an Amiga? The answer is in giving the world what it wants. They want support; offer free classes with every computer sold and step-by-step help over the phone for as long as they have questions, all for just the price of the call to the customer – the way IBM did in the '70s and '80s. With this move, anyone that has never bought a computer or can't use a computer will think of the Amiga as their choice of computer. That move alone would get you 66 per cent of America looking at Amigas.

"What about Doom, Quicken, AOL and MS Word? If I can't use this software I don't want an Amiga." This is what you would hear from most people when they look at the Amiga, and the truth is this hurts the Amiga more then anything. So again, give the world what it wants. Give them all the off-the-shelf software in the world! By this I mean that if the Amiga is moving to the PowerPC chip and the PCI bus, why not have the next Amiga with a PowerMac built into it? Something like shape shifter, but rather a ready to go PowerMac right out of the box. And if you're going to use the PCI bus then why not have a second CPU slot for an Intel chip, to make the Amiga an IBM PC as well?

Think about it – no more choices about which computer to buy. You simply buy an Amiga and get everything!!! The beauty of this is that Amiga Technologies can put a bottom of the line PowerPC and Intel 486 chip in the machine and still have the best all-in-one box. To get around the custom chips, simply don't put them into the next Amiga, copy them as software and move them into RAM when the Amiga is running. The advantage is that you save money on not having to buy the chips, and native PowerAmiga software running on the IBM standard display card will be so fast it will scream. Compatibility with older Amiga software should not be that great a concern, because the future and power of the Amiga is not in the old software but in the updates that are PowerPC native. This would be good for the Amiga user, great for Amiga Technologies, and excellent for the Amiga software companies.

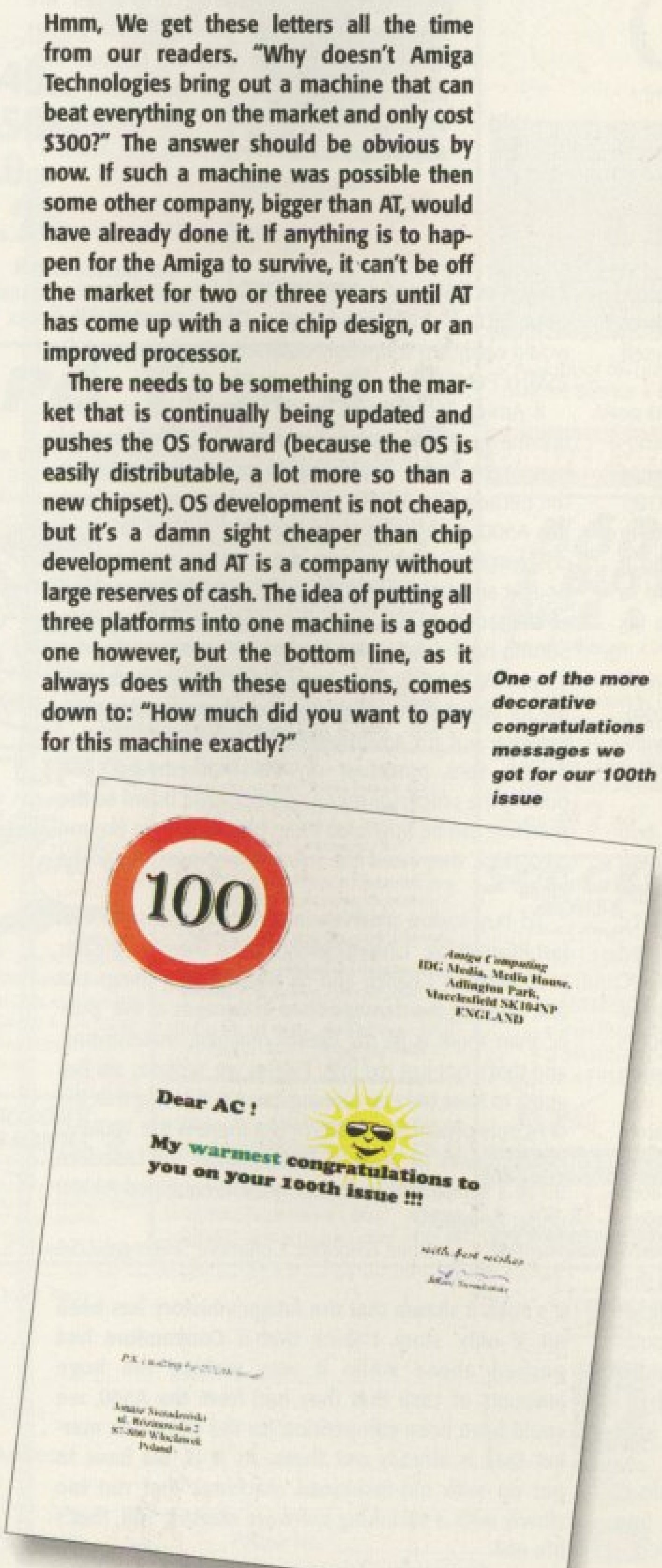
If Amiga Technologies can make this machine for US $1000 to $1600, I'd line up to buy one. Also, if Amiga Technologies can make a stripped down, low-cost model for US $500 to $1000 it should then sell the computer at cost to manufacture, allowing only $50 to $100 dollars profit to the retailer. Doing this would then flood the market with a machine that had the monopoly in the amount of software it could run – the real reason people buy computers. The Amiga would then get into homes it would never have a chance of being in before. The best part about it is that people then could recommend the Amiga – computer literate or not!

Please pass this letter on to all that use the Amiga. This all-in-one idea is the best hope for the Amiga because it's so easy for most people to see that the Amiga is the computer that runs everything!

Adam & Keri Longaway, Topeka, Kansas, USA

Hmm, We get these letters all the time from our readers. "Why doesn't Amiga Technologies bring out a machine that can beat everything on the market and only cost $300?" The answer should be obvious by now. If such a machine was possible then some other company, bigger than AT, would have already done it. If anything is to happen for the Amiga to survive, it can't be off the market for two or three years until AT has come up with a nice chip design, or an improved processor.

There needs to be something on the market that is continually being updated and pushes the OS forward (because the OS is easily distributable, a lot more so than a new chipset). OS development is not cheap, but it's a damn sight cheaper than chip development and AT is a company without large reserves of cash. The idea of putting all three platforms into one machine is a good one however, but the bottom line, as it always does with these questions, comes down to: "How much did you want to pay for this machine exactly?"


100

Amiga Computing
IDG Media, Media House,
Adlington Park,
Macclesfield SK104NP
ENGLAND

Dear AC !

My warmest congratulations to you on your 100th issue !!!

with best wishes

One of the more decorative congratulations messages we got for our 100th issue

ANOTHER PC BUYER

A little over a year ago, Escom acquired the Amiga. Now VIScorp has it. It is clear that Escom couldn't do the job needed to revitalise the ailing machine, but what can VIScorp do? I can't say I've heard much about this company, leaving doubt as to what resources it is willing to invest into our computer. With the PC market full of Pentiums and Windows 95, can even a PowerPC, one that is used in PowerMacs, save the Amiga now? Consumer confidence must be lower than ever before and, let's face it, not many firms are joining us rather than leaving us. But there is yet another problem in the equation – the price.

When I saw an Escom advertisement in *Amiga Computing* offering a deal for A500/A600 owners to buy a new A1200, I thought great, a decent price, then I saw the words 'Trade in'. Now, whilst kick starting the Amiga must be pretty painful to a bank balance, it cannot hope to sell Amigas for £250+ when for the price of an A4060 you could buy a pretty decent PC, one that could be used for working at home and bring data into the office with. With the price and position that the Amiga is in, I don't blame an awful lot of people selling their 'worthless' A600s and jumping into the PC market, as a lot of my friends have. And, it is with great sadness that I too have to make this jump.

I cannot afford to miss out on what the computer industry is doing – working on PCs. Had Commodore made the right decisions, I am sure there would be a market for programmers to produce Amiga software for businesses, but only a handful of small businesses using the format, and with Universities using Macs and PCs, I have no choice. Having looked at the PC market's prices, I can now see clearly what is wrong with the Amiga, and it doesn't take a genius to do that. All I can say now is good luck to the Amiga. I am giving my old A600 to my sister for games usage. I shall be buying a nice 133Mhz Pentium multimedia myself very soon!

(Oh, and well done for being what I can see as the best Amiga mag on the market, and happy one hundred!)

James Green, Norwich, Norfolk

I guess you won't be needing our services any more then James. I think everyone is agreed on the fact that for what it currently offers, the Amiga is too expensive. However, if VIScorp manages to put the Amiga chipset onto one chip, and then sell its set-top boxes for a couple of hundred dollars, it can only mean a price drop for the Amiga as a computer too. I think it's probably best to hang onto your seats. The show isn't over yet.

THOSE GAMES COMPANIES!

£50 PRIZE LETTER

Hi guys! I'm an Amiga user from Mexico and I love your magazine, but I'm not writing just to congratulate you. As a matter of fact I'm writing because I'm seeing something terrible that I called the anti-Amiga syndrome, and the ones who have this illness are the software companies. Let me explain to you what I'm talking about:

Firstly, a group of guys want to be in the software industry, (a good example could be Team17, Bullfrog, etc. in their early years). Of course, it is difficult to develop software for the PC, and for the consoles it is practically impossible if you are a new group. So what do they do? They develop games for the Amiga, they create some excellent software, and they even say that they are real Amiga fans and they'll always support the Amiga (Team17 once again). But what happens when these guys become a great company? Firstly, they start creating software for the PC, and then what happens? Well they usually say that the Amiga is not a profitable computer and they leave our platform!

Now, what am I trying to say? It's very simple. Some software companies are using us as a 'bridge' to start in the games business, and when they are famous they drop us like a piece of garbage! I don't know about you, but I can't tolerate this any longer – have you seen the Team 17 Web pages lately? Well if you look at them, you will see in the Team Talk section that Worms 2 will not be available for the Amiga. This is disgusting. A company that became a success on the Amiga is now saying that it can't earn any money from us. I agree that piracy is bad, but the PC is not piracy-free. I also can't understand why, if it is not earning money, has it survived all these years, why is it a great company now? The same happened with Bullfrog, and Psygnosis (they don't create games for the Amiga anymore because 'daddy' Sony says no, but Psygnosis was only famous because of the Amiga).

Let's stop being the launch platform for all those companies that want to be in the games world. Now is the time to show what Amiga users want. I'm not expecting to get Psygnosis or Bullfrog back to the ship, what I want is for the Amiga community to show their disappointment in these companies.

Let's send some e-mails to Bullfrog, and to Team17 (maybe we will get Worms 2 after all). But must importantly, let's buy original games. We must show them that the Amiga is a great platform and this is the only way to show them. If I can buy original games (remember that I live on the other side of the ocean) then you can too.

Finally, let's tell all those new companies that we are tired of this situation. If they want to develop for the Amiga they are welcome, but don't use us as a bridge to success on the PC. We deserve as much respect as all the other platforms, and maybe more, because the Amiga has survived tough times and we've never left our beloved machine. We are looking to the future, but we want to continue with companies that love the Amiga. Remember, just say no to the anti-Amiga syndrome!

Aristides Castiglioni, Mexico

Well done Aristides. You'll receive the £50 prize as soon as you give us your address. Apparently, the reason so many games come out on the PC as regularly as they do is problem enough, and most PC games actually shift less numbers than Amiga games back in the Amiga's heyday, which is a little surprising considering the disparity in the respective sizes of their markets. Not only can our readers e-mail and write to the games companies, they could also point out the results of our reader survey – they're up on our Web site at http://www.idg.co.uk/amiga-comp/. Just go to the Stuff page and you'll find it easily.

Of course, on the other hand, Amiga users shouldn't expect these games companies to simply give up on their PC and console development just because we ask them to. They are making more money in these markets than they did on the Amiga, but that shouldn't stop them from bringing out games on our platform too.

MORE PC WOES

First of all, I'd like to thank you for a great magazine. When Amiga World went under, I'd reached the point that I didn't read it much anyway, but I find myself reading your magazine almost cover-to-cover.

I bought my first Amiga (an A2000HD) in 1990 or 1991 during one of the few good marketing promotions Commodore did – the heavy discounts for those upgrading from another Commodore computer. Over the course of the next year or so, I fitted it with more and more RAM, an accelerator, a Bridgeboard and a host of PC peripherals, a display enhancer and a multifrequency monitor – it was quite a system for 1992.

Then Commodore went under and it became more and more difficult to justify the use of an orphan computer. I kept the Amiga, but since I was making my living at the time selling, repairing, and upgrading PCs, I had to buy one.

Now it's 1996, and my ageing A2000 has seen two PCs come and go, followed by a third that may have a little more tenure. Now I find myself doing very little on those PCs that I couldn't do on an Amiga – and I'd much rather do word processing, Internet access, and graphics work under the Amiga's OS than under any PC operating system out there (IBM's OS/2 Warp is the only PC operating system worthy of washing AmigaOS's feet – DOS, Losedoze 95 and the like aren't even worthy of running in the same room).

So I'd love to come back to the Amiga. Unfortunately, that A2000 is showing its age – it's best video modes display only 16 colours, and only very slowly. My latest PC, with its flashy Trident video card, will only very reluctantly do 16 colours – it'd much rather give me 16-bit or 24-bit colour, and it does so quickly. Since I need that kind of colour depth occasionally, the A2000 will either have to be upgraded or replaced outright. I could outfit it with an 040 or 060 accelerator and a Picasso video board, but by the time I do that, I've spent more than I would on a PC and I haven't done a thing about hard disk space.

Alternatively, I could get an A1200 and upgrade it, and then I'd have a machine small enough to tote around and full AGA compatibility. But a bare A1200 – 2 megs of RAM and a 14MHz 020 and no hard drive – costs $600 in the United States. That kind of money would easily buy a similarly-outfitted (albeit less useful) 75MHz Pentium.

If Amiga Technologies really wants to be anything but the poor man's alternative to an SGI workstation here in the States, it really has to move into this half of the decade. The A1200, although a huge step up from the A500 it replaced, was arguably on the brink of obsolescence when it came out. It seems most people bought an accelerator at the same time, but some kind of upgraded A1200, with 4 or 6Mb of RAM, a 400-500Mb hard drive, some kind of 040 processor, and a 15-pin SVGA port to use commodity PC monitors, selling for about $800, might stand a chance in this marketplace – if it's advertised. Simply using the existing design, sans processor on the motherboard, and putting the processor on an upgrade-style board so the machine can be upgraded to an 060 by people like me who think they need the extra horsepower would be ideal.

I'd buy such a machine in a minute and send that last PC packing. Unfortunately, I think there's a greater probability of Charles and Di straightening things out and undoing the damage done in the eyes of the public than there is of my dream machine materialising, and that's not just my loss. I guess we Yankees are just going to have to keep running around, thinking that the only truly productive platform out there is the 100MHz Pentium with 16-24Mb of RAM that can run Losedoze 95 at a similar clip to that of an 030-equipped A1200 under AmigaOS.

Dave Farquhar, Columbia, Missouri, USA

It's such a shame that the Amiga's history has been an 'if only' story. I think that if Commodore had pushed ahead while it was making the huge amounts of cash that they had from the A500, we could have been competition for the huge Mac market that is already out there. As it is, we have to put up with old-fashioned machines that run too slowly with a shrinking software market. Still, that's life eh?

amiga computing advice service

acas

Haunted by ghosts in the machine? **ACAS** will dispel troublesome spooks and spectres from your possessed **Amiga**

I'm hoping you can give me some advice on how to start programming. I have been told that EasyAMOS is the best way for me to learn how to program the Amiga, but I would just like to know if *you* think this is the best way to start? In the long run I would like to become a games programmer, so what would the best steps be if I want to go in this direction?

Jason Chapman, Bedford

In general, if you want to become a programmer there are three things you need to have and do – practice, patience and persistence. All are very important. You have to practice writing code so you can learn and understand how program instructions work, you will have to be patient with yourself because you will definitely not become a programmer overnight, and because of this you will have to be persistent and not put off by setbacks or tough problems.

As a start, EasyAMOS, or even Amos itself, is a good starting place. When you start programming you are really just learning about the basics of how programs work, and once you have mastered these basics you can apply this understanding to any programming language. Most conventional programming languages work on the principal of sequence, selection and repetition. Every program runs in a set sequence, and during its execution certain selections can be made and sequences can be repeated.

Using EasyAMOS you will learn how the commands that specify and control each of these stages work, and how to use them, and again this basic knowledge is transferable to other programming languages.

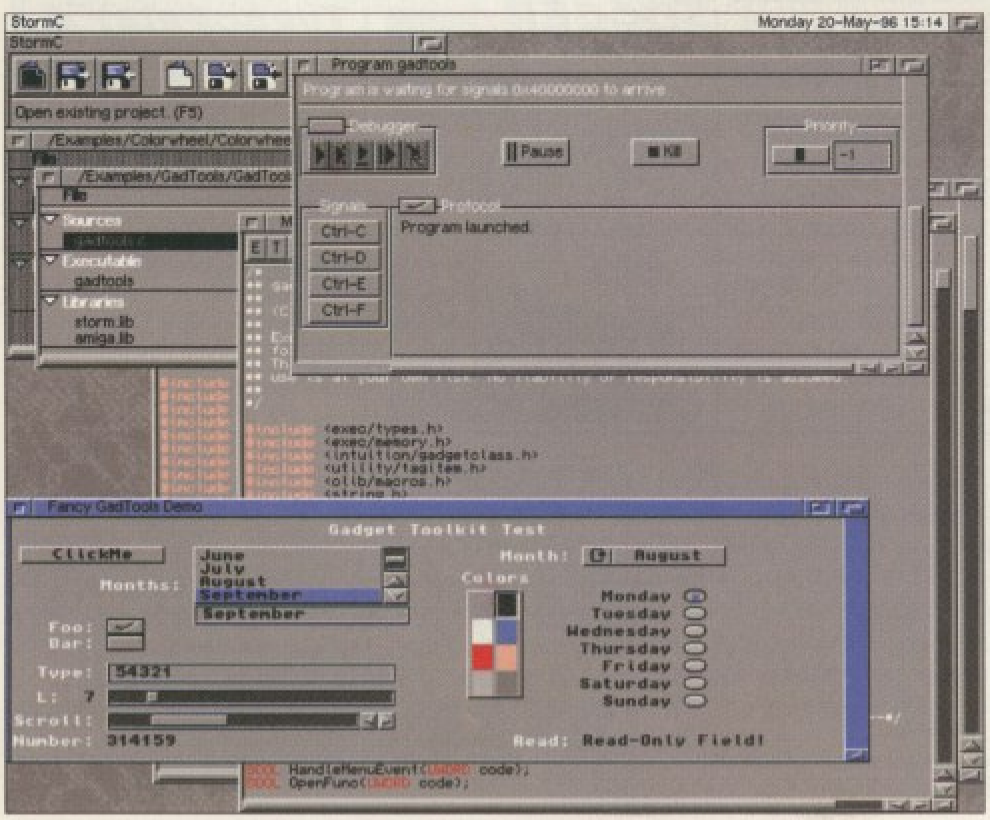
If you are looking to make a career out of programming then, obviously, you should go through the normal educational process – GCSEs, 'A' levels and, finally, get yourself a degree in computer science. While you are generally learning about computing in these courses you can be happily programming on your Amiga – it may even be the case that you can incorporate what you are doing on the Amiga in your course as some sort of course work project.

You should also be aware that EasyAMOS will only be a starting point. Even though you can do some impressive looking things with Amos, it does not allow you to develop the correct programming skills that are required now-a-days. To do this you need to get hold of a 'grown up' language, and your main choices are going to be either Assembler or C. You may want to consider Pascal but the other two are supported and used much more.

Generally, it is taken that if you want to write games on the Amiga you will have to use Assembler to extract every ounce of speed from the Amiga. However, as PCs and the new generation of consoles increase in speed, the need for this absolute speed diminishes and many companies are advertising for experienced C and C++ coders, instead of just pure Assembler programmers. Also, if you undertake any course at university most projects will normally involve C and C++. This is due to the sheer speed of PC processors and the fact that the speed difference between code compiled with C and Assembler for RISC processors is a good deal less than on traditional CISC processors. On top of this, if you are using C and need a speed increase you can just write the time critical parts of your code in Assembler, and this approach speeds project development and allows you to concentrate on tweaking the gameplay. Another advantage of using C is that it will make using the operating system easier than if you had to use Assembler. This brings in the old do you use the operating system or hit the hardware debate. A few years ago there was a clear divide between Amiga programmers – either you were a demo/game coder or wrote 'serious' system utilities. Game and demo coders needed to get as much memory and speed out of the machine as possible, and the only realistic way of doing this was to get rid of the operating system and code directly to the Amiga's hardware. This then allowed programmers to get amazing results from a relatively slow machine. The downside to this is that as soon as the Amiga's hardware changes, even slightly, these sort of programs can cease to work.

The alternative way to programming is through the Amiga's operating system. Up until recently, demo and game coders have always rejected this approach, citing the need to grab as much memory and to grab every CPU cycle possible. These were sensible arguments five or six years ago but now with faster processors, faster and generally improved graphic operating system functions, and a generally higher system specification – on average our readers have 7.5Mb of RAM – these points lose their credibility. These arguments are borne out by the fact that many recent games, such as Subwar 2050, Breathless and Nemac IV, all run on Intuition screens and multitask along with the rest of the operating system.

You should also remember that the consoles have their own operating systems which are nowhere near as complicated as the Amiga's, but experience gained using the Amiga will greatly help in any job you get. Remember that anything you write yourself can be shown to potential employees, greatly increasing your possibility of getting a start in programming.



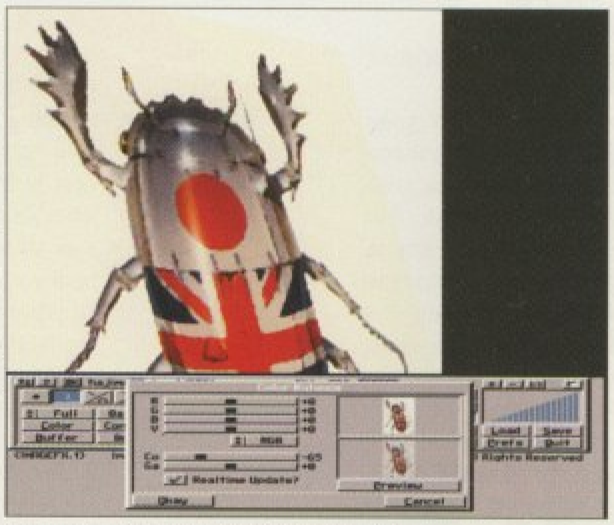
There are a few public domain C compilers out there, but StormC gives you a professionally integrated environment

THE IMAGEFX FILES

The problem with ImageFX that has been troubling Adrian Bernascone is exactly what happened to my machine when I deleted ImageFX. A requester kept on asking me to insert ImageFX and it was driving me mad.

After a good deal of searching and routing through files, I eventually found the answer. It wasn't anything to do with assigns, but the fact that ImageFX altered the AmigaGuide ENVARC settings.

Using DOpus, I found that in ENVARC and also ENV there is a directory for AmigaGuide and in this directory is a file called path. Reading the contents of path showed just the words ImageFX.



Never again will AmigaGuide trouble you for the ImageFX disk

I deleted the words in the path file, both in the ENVARC and ENV directories, saved it as a blank file, and all went back to normal. I can't get this information direct to Adrian because no address is published, so perhaps you can. I trust the information is of use to you as well.

David Hilton, davidh@enterprise.net

If anyone else is having the same problem you will need to open a shell and type delete envarc:amigaguide/path and this will delete the troublesome file. It seems that AmigaGuide will search for any paths that are listed in this file, probably for AmigaGuides that have multiple parts. I should also thank Dominique Dutoit who sent in the same solution to this problem.

GOING DOTTY

I have a printing question. Did you cringe? Various printer manufacturers claim their printers will do 5ppm but in reality it is more like five minutes per page, even on an A4000 with 8Meg! I use FW 3.0 with an HP-540 at 300dpi. I need this sort of quality but faster. Is a Post Script printer in order or an accelerator card? I want to pump out a 100 pages an hour not per day. Help!

Sean, via the Internet

There are many different variables that effect the speed of printing a document including the software, printer, printer driver and the type of document you are printing. You currently own an HP Desk Jet, so realistically I cannot see you managing to get the sort of throughput you require. If you look at the HP specification you can print one to two pages a minute on greyscale mode, or 1 colour page in four to seven minutes.

With a Desk Jet there are, however, a couple of things that can help increase the page output. Firstly, extra memory cartridges can be bought. You may have noticed that when printing a page, Final Writer will usually finish outputting to the printer before the printer actually finishes. This happens because the HP only has a 32k buffer which is only enough data for a few centimetres of output. With one of the memory upgrades you can load the whole page to the HP and do multiple prints of that single page. A possible alternative to buying a RAM expansion for your printer is to use the CMD command which comes as standard with the Amiga system disks. The CMD command allows you to redirect the data that *would* be sent to the printer to a file instead, so if you run this command and then print with Final Writer you will generate a spooled print file. Once this has finished, if you open a shell and type *copy <name of spool file> par:* this will then allow your printer to print out as fast as possible.

As you have an A4000 it should be fast enough to keep up with the printer, and it may be the case that your A4000 is hanging around for the HP to keep up. If this is the so, you should consider a print spooler. The other way of increasing throughput is by using printer fonts. Normally, each time Final Writer has to print a page it generates a 300 dpi bitmap and sends this to the printer. If Final Writer could use printer fonts then it would send a description of the fonts to the printer instead which would store this in the memory cartridge.

All Final Writer has to do then is tell the printer to print an 'A', instead of having to generate the bitmap itself. Even so, if you are printing lots of graphics you are still going to be stuck with the HP printing at around one to two pages a minute which is probably not enough. This leaves you with the option of getting a fast Postscript printer. If have reservation about the claims of the printer manufacturers, you are right and wrong. The five page per minute printing speeds claimed by the manufacturers are for repeat prints, and this is a similar situation to the HP.

If your Postscript printer has enough memory you can download an entire page to the printer and tell it to print x copies of that single page. This will then be printed out at 5ppm or whatever the top speed of that printer is. You can then send the next page, which could take a little while, and then run off another x copies of that.

ALL TIED UP

Hello out there. This is the first time I've tried this, so be gentle with me. My question may seem basic to many people, but I need to know if I can use different SCZIPs for my A3000. I'm ready to get some more and I'm trying to figure out the best solution.

I currently have 80ns SCZIP, but will I be able to use 60ns and 70ns chips or will I have to stick with 80ns? With the current price of SCZIPs here in Canada being so expensive, is there any other realistic option?

Gordon, Canada

The types of Zips that the A3000 will accept are either static column or page mode. Static column is better and allows the 030 to access burst mode for a 10 per cent increase in speed.

You can either put in 256x4-bit or 1Mx4-bit chips, but do not mix and match them. With all banks populated you will either have 4Mb FastRAM or 16Mb FastRAM respectively. If you currently have 4Mb of FastRAM then the current chips are 256x4-bit SCZIP chips. You should be able to mix the speed of the Zip chips but they will only run as slow as the slowest clock speed you have fitted. You might as well go for the fastest clock speed you can get because they will not be that much more expensive.

Unfortunately, for you anyway, due to the favouring of Simms in the computer market the price of Zips has dropped far slower than the price of Simms, and recently, with the world supply of Simms back up to speed, Simm prices have dropped even more dramatically. As you already have the full complement of 256x4-bit Zips on your A3000, it looks like your only option is either get rid of them all and change them for 1Mx4 Zips or to go for a Zorro II/III RAM card or accelerator card. A new Zorro card is not going to be cheap but if you go for one of the new accelerator cards you will get a much faster machine, more memory and usually a fast SCSI-2 interface.

acas

Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave in the coreect manner?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP.

Alternatively you can e-mail us at ACAS@acomp.demon.co.uk

PC CONNECTION

I have several questions to ask. The first is related to my intended purchase of a laptop PC and the rest have just been collecting dust in my mind for some time.

1. I would like to know what options there are to link my A1200 to a laptop PC?
2. Is it possible for the Amiga to access an Ethernet network through the PC by connecting the PC to the network and connecting the Amiga to the PC?
3. Can a second IDE hard drive be fitted inside my A1200?
4. Are there any other monitors other than the Microvitec 1438 that will display all the Amiga's screen modes without flickering?
5. Are the SCSI connectors on Blizzard Accelerator boards better than the Squirrel?
6. What use is an FPU apart from 3D rendering?
7. Is there still a speed increase if the FPU is slower than the processor?

Gavin Kinsey, mcai5gk1@stud.umist.ac.uk

1. There are plenty of good options around for connecting two Amigas together, such as Parnet and Sernet, but when it comes to connecting to a PC the problem you have is that you need both networking software on the Amiga side and the PC side. The most straightforward way, and the least usable, is to connect your PC and Amiga via a serial cable and use a terminal program such as Term or NComm to transfer files between the Amiga and the PC. If you only want to transfer files on an irregular basis, such as once or twice a day, then this would suffice.

On the other hand, if you want something a little better there is a program called EasyLink which gives you software on both the Amiga and PC side and allows you to access and transfer files on either machine using a GUI. As I have not been able to try it out I cannot comment on exactly how it works or how good it is, or whether it will work with MS-DOS, Windows 3 or Windows 95. The best solution would be if you could link the PC and Amiga using an ethernet card. The only ethernet card for the A1200 that I know of is the i-Card, but unfortunately they are in short supply and are very expensive, especially when you compare it to similar PC cards.

2. Whether you can access files over an ethernet network via the PC using your Amiga is down to how the EasyLink software and the PC operating system interact. If the roles were reversed, with you accessing the ethernet network over your Amiga, I could say yes because it would just appear as another disk on the Workbench. I assume the same happens on the PC side of things and if it does you should be able to access files on the Amiga via your PC, but without trying I cannot, obviously, guarantee that it will work.

3. As the A1200 has a standard IDE interface you can fit a second hard drive, but the obvious problem is one of space. Where were you planning to squeeze the drive in? One solution would be to trail the IDE ribbon cable out of the side of your A1200, but this is not the best of solutions.

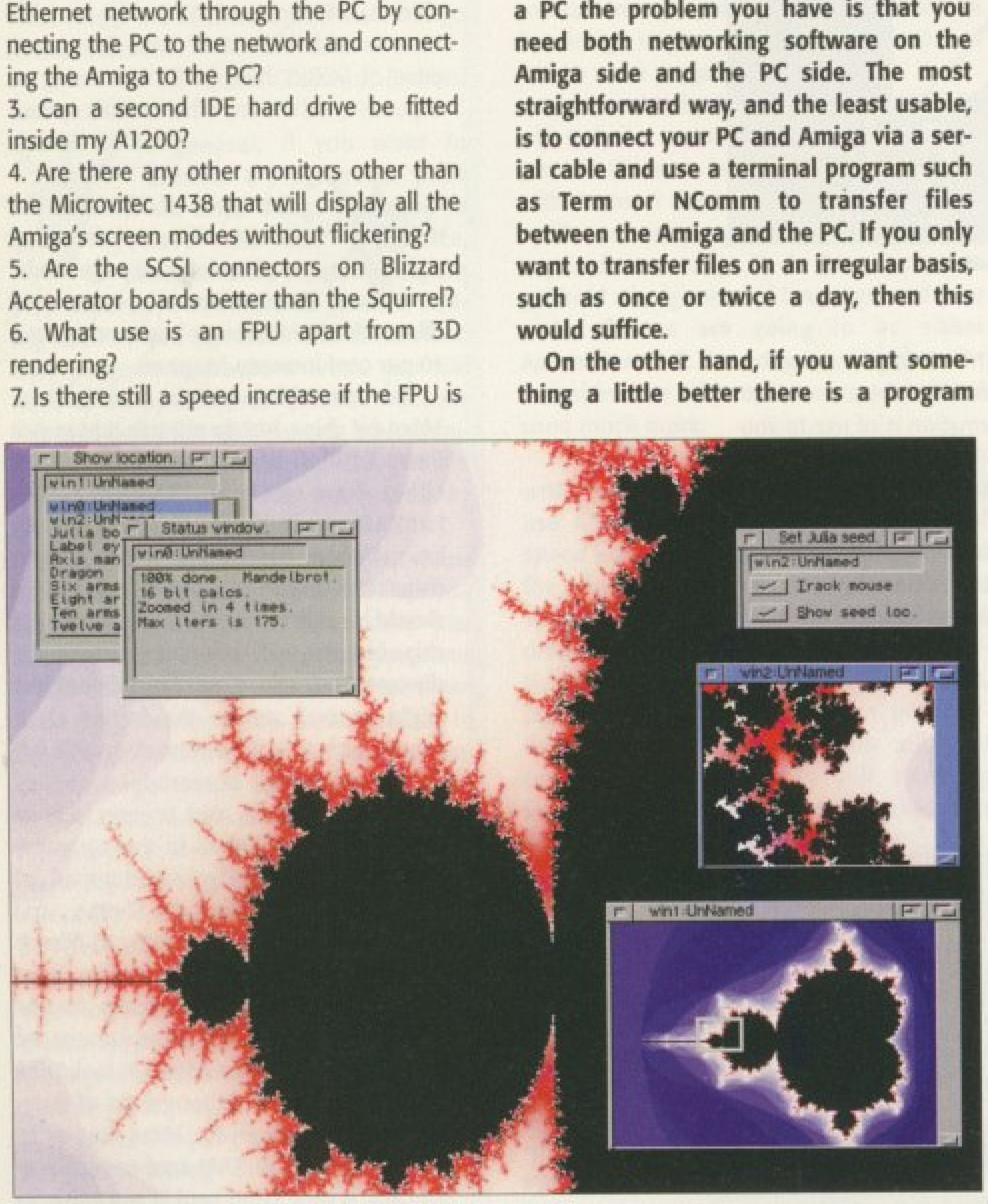
The other possibility would be to remove your internal disk drive and fit the second hard drive in the remaining space. If you have an external disk drive then use this as a replacement for your lost internal drive. Therefore, the answer to your question is yes, but it is a bit of a performance.

4. I would like to say yes, any multisync will do the job, but this is just not true.

5. Unfortunately, we have never had the chance to test out the Blizzard SCSI modules – they seem to be in short supply – but I think the throughput would be superior to the classic Squirrel and, theoretically, better than the new Surf Squirrel. However, in practice I doubt actual transfer rates will be better than those you get out of the Surf Squirrel.

6. Basically, an FPU drastically reduces the amount of time needed to process floating point and transcendental mathematical calculations. On the whole these are largely used by 3D rendering programs, but mandelbrot and other mathematical-based programs can make use of them and, of course, flashy benchmark programs.

7. Even having a slower clocked FPU than the CPU will still give a large speed increase because an FPU can calculate floating point equations tens, or even hundreds of times faster than the CPU. Having an FPU with a faster clock than the CPU will give little speed increase over an FPU with the same CPU clock rate, however, due to the data being given and taken from the FPU at the same rate.



An FPU will help Mand2000 wizz along, as will LightWave or any raytracingpackage

A600 HARD DRIVE

I own an A600 with 2Mb ChipRAM and Kickstart 2.04. I recently purchased a second-hand 80Mb 2.5" hard drive to use with the machine. The drive worked fine in another Amiga, but somehow my A600 refuses to recognise it at all. When I start up HDTools, it does not show up when I go to the bootmenu. I tried to install another hard drive some time ago, but that was a rather old 3.5" unit and I gave up on that project pretty quickly. Is there a chance that I might have broken my IDE-interface then, or have I forgotten to do something?

Geir Sandstad, geirrs@stud.idb.hist.no

Normally, if your Amiga does not recognise the IDE drive straight away then there is a definite problem. It is possible that you have a very early version of the A600 shipped with a version of the operating system that did not recognise the IDE interface, even though there is one on the motherboard. If you have version 37.299 of Kickstart or earlier then your A600 will fall into this category. You can find out your version of Kickstart either by loading workbench and selecting 'about' from the Workbench menu, or you can type 'version' into a shell. One way around this would be to get the Kickstart 3.1 upgrade which has replacement ROMs.

If this is not the problem then I would guess that the IDE interface is damaged in some way. More unlikely is that the jumper settings on the hard drive are incorrect. It may be set up as a slave IDE drive but even so, I would have thought the Amiga would still recognise that it had a drive connected.

public sector

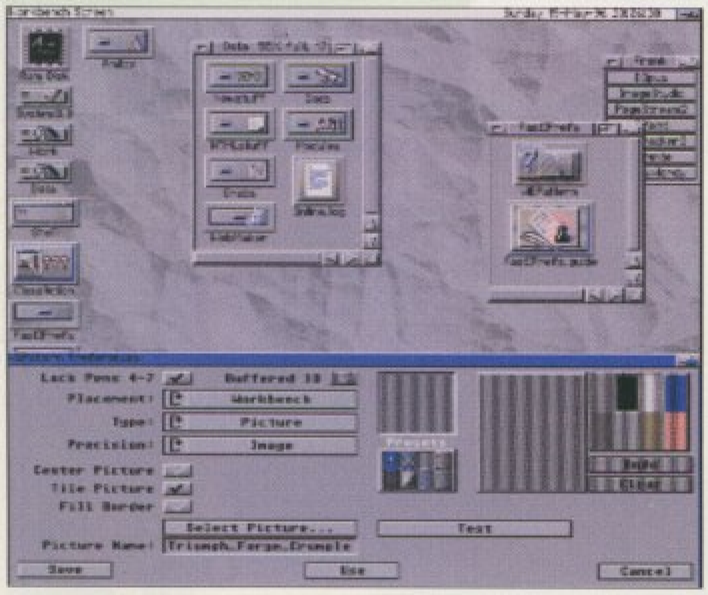
Dave Cusick plunges head first into là piscine de PD and takes a chlorine-filled gulp of its wallet-friendly waters

As ever, there's a little bit of everything in this month's Public Sector, and it represents the very best in the PD and shareware world.

Also thoroughly worthy of an honourable mention is an indispensable little utility called FastIPrefs. It's a replacement for the standard IPrefs program called as part of a Workbench boot-up which gets rid of various IPrefs bugs when handling certain workbench backdrop pictures. It also comes with a new improved WBPattern program offering nice features like the option to centre a picture on the screen, or to lock colours 4-7 for Magic Workbench purposes. In short, it does a bit of technical trickery and leaves you to get on with working on a nice, pretty Workbench. It's available in the util/boot/ directory on Aminet.

Incidentally, if you don't own a modem and you're looking through Public Sector thinking "Why are so many programs listed as available on Aminet?" then don't despair. You should be able to find most in your usual PD library, and if they don't happen to stock it, several libraries offer an 'Aminet On Disk' service for a very reasonable price – try Your Choice PD for instance.

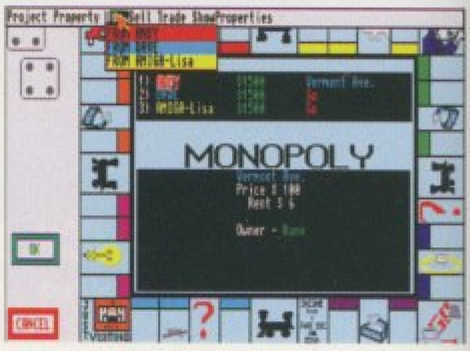
Make your Workbench look even lovelier with FastIPrefs and the improved WBPattern Prefs program which comes with it



AMONOPOLY

Programmed by: Al Metz
Available from: Aminet
(game/board/amonopolyv14.lha)

Converting a board game to a computer successfully is not an easy task. Whilst the basic mechanics of a game might seem rather simple, stop to think about all the complex situations which could arise in a game like Monopoly and it's easy to see just how problematic a conversion could be. On top of all that, part of the charm of board games is that they're an opportunity to have a laugh with other people – playing against a computer is never as satisfying, and if you've got friends handy why not simply play the board game?



Can I be the battleship? Please?

Anyway, putting theoretical justifications to one side (or something), AMonopoly isn't bad. It has a sort of pointy-clicky interface although you will also need to use the keyboard to answer the myriad of 'Yes/No' questions the game will throw at you. The graphics are alright, the counters and board spaces are all reasonably clear, and the sound effects are passable if nothing more.

You should also note that AMonopoly uses the properties from the American version of the board game, so if, like me, you're not familiar with them you could find things a little confusing – especially since the property names aren't actually marked on the board, and some of the reddish property colours are a little hard to differentiate. Still, all things considered, AMonopoly is a brave and relatively successful attempt at bringing Parker Bros' legendary game to the Amiga. It's a shame you can't steal money when the banker's not looking though.

ABACROSS

Programmed by: Per Thulin
Available from: Aminet
(game/think/abacross.lha)

If you're to succeed in beating the computer at AbaCross you'll require a combination of strategic thinking, numerical aptitude and luck. There are elements of Connect Four and Scrabble in this testing puzzle game.

The objective is to be the first to make a line of three counters in your colour. However, you can't place a counter just anywhere on the board. Each square is marked with a number, and you can only place a counter on that square if you can use your six counters to get from the currently selected number to the number on your target square. The counters are marked either with a number from 0 to 9 or with a mathematical operation (add, subtract, multiply or divide). For instance, if the flashing square was marked 42, and your target square was 7, you could divide by 8, or subtract 35. If you can't go, you can return one of your counters and receive another.



Get your brain in gear for some numerical frolics with AbaCross

It's possible to change the colour of a square on the board from your opponent's colour to your own by simply getting to that number again. However, you can protect squares that are already yours by getting to that number again, whereupon the counter will flip completely around and the number on the square will vanish. Did you follow all that?

Whilst it all sounds a little bizarre, it makes for an engaging and challenging experience. If your mathematical abilities are a little rusty then this is a fine way to polish them up again.

GAME of the month

BattleDuel

Programmed by: Jochen Terstiege
Available from: Aminet
(as game/2play/battleduel.lha)

Ably assisted by graphical chum Michael David and musical mate Marco Seine, enterprising Deutschlander Jochen Terstiege has produced a marvellously addictive game in the same vein as that bovine bomb-fest, Cow Wars. Beautifully presented and featuring scores of options, BattleDuel is a multi-player classic which deserves installation on games partitions everywhere.



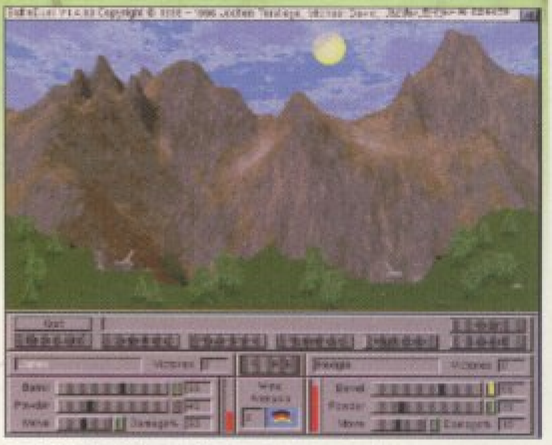
For those unfamiliar with such sophisticated, complex and mentally demanding games, the object is to blow the opposition into oblivion by firing missiles at them. There are two factors which control the path your missile takes when launched, namely Barrel (angle of launch) and Powder (the force with which the missile is fired). You can also move your launcher backwards and forwards slightly. Hits on the opponent do differing degrees of damage depending on exactly where the missile strikes, and the first person to inflict 100 per cent damage on the opposition wins.

BattleDuel boasts some attractive graphics, and with a few backdrops to choose from and the option to enable or disable certain graphical features, you can customise the appearance of the game to some extent. The music isn't bad either and there are some really atmospheric sound effects, ranging from bird song during the quieter moments to the obligatory explosions and even broken glass for shots which go too far astray.

Another string in BattleDuel's already powerful bow is the option to play against people over a network. It's possible to duel via a null modem connection, a proper modem connection, or through a TCP/IP connection over the Internet. Since the game multitasks perfectly, it's nice to have a game of BattleDuel running whilst you're downloading some files from Aminet, or even during duller moments on the IRC channels.

In a Mary Poppins-esque fashion, BattleDuel is practically perfect in every way. Admittedly, it can't produce hatstands from carpet bags or leap into cartoon landscapes in a pavement drawing, but there's just as much entertainment here and you are thankfully spared Dick Van Dyke's rather pitiful cockney accent.

Up to four players can participate in BattleDuel's tournament mode, but since this is deactivated in this unregistered version (you can only have two players here), there's even more incentive to register with the authors. For a tenner you'll be getting a complete version of one of the best multiplayer games in years.



BattleDuelling against an opponent from the other end of the country

J-Windows

Programmed by: John Houseley
Available from: F1 Licenceware
Disk No: F1-138 (2 disks)

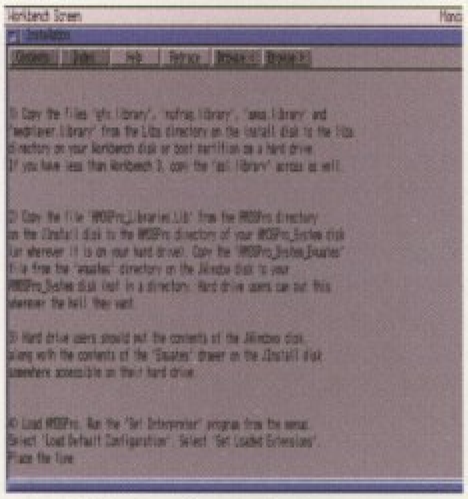
Wouldn't it be nice if that ever-popular programming language Amos could actually do things with Workbench properly – Multitasking, Intuition interfaces, proper AGA screenmodes, that kind of thing. Decent menus, attractive GUIs. And all in a proper extension, rather than a set of 'simulate it in the nasty Amos environment' procedures. Admittedly, there is the Intuition extension, but it's not perfect. If a do-it-all windows extension for Amos existed, it would be a Godsend.

Well perhaps, just perhaps, God's second name is Houseley, and his angelic distribution network is based in Exeter. (That would probably make F1 Licenceware bloke Steve Bye the angel Gabriel. Well, whatever.)

To use J-Windows you'll need AMOS Pro. Once you've got everything installed you will be able to produce sophisticated, good looking programs in a fraction of the time it would take other programming languages.



Just think what possibilities present themselves in Amos once you've got access to the Intuition interface...



...and J-Windows is relatively simple to install too

There are around 200 new commands at your disposal which will allow you to create stylish user interfaces (in GadToolBox if you wish) for your programs. You will have proper font handling, decent screen requestors and real workbench screenmodes (AGA ones too). Your programs could have menus which actually work, with checkable items, hotkey support and so on. They could have proper Intuition gadgets. Your programs will run at Workbench speed, and will look to all intents and purposes like they were written in a far more complex and time consuming language.

The nasty Amos file handling system, possibly the slowest system I've ever seen, is replaced by a totally new one which, at times, runs up to 20 times faster. There are also plenty of Amos bug fixes which will make using the language infinitely more pleasant.

Getting to grips with all the new commands shouldn't be too tricky either because there's a massive AmigaGuide manual included, and scores of well-explained demonstration programs (which actually do useful things).

J-Windows is easily the single most important Amos extension in existence and for only a fiver it represents superb value for money. Only a foolish Amos programmer would even attempt to live without it.

The day we caught the train

I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable public domain, shareware or licenceware, if you feel it's of sufficient quality to merit coverage then stick it in a jiffy bag or padded envelope and send it in with all haste. Although Public Sector receives too many submissions to cover them all, I promise I'll at least look at your work – even if it's yet another Lottery program or Klondike cardset. It does make my job a lot easier, though, if disks are clearly labelled. Please also include a cover letter detailing the disk contents and price, and giving some basic instructions. The magic address is:

Dave Cusick, PD submissions
Amiga Computing, Media House
Adlington Park, Macclesfield SK10 4NP

SCREECH

Produced by: Insane Software
Available from: 17 Bit Software
Disk No: 4044

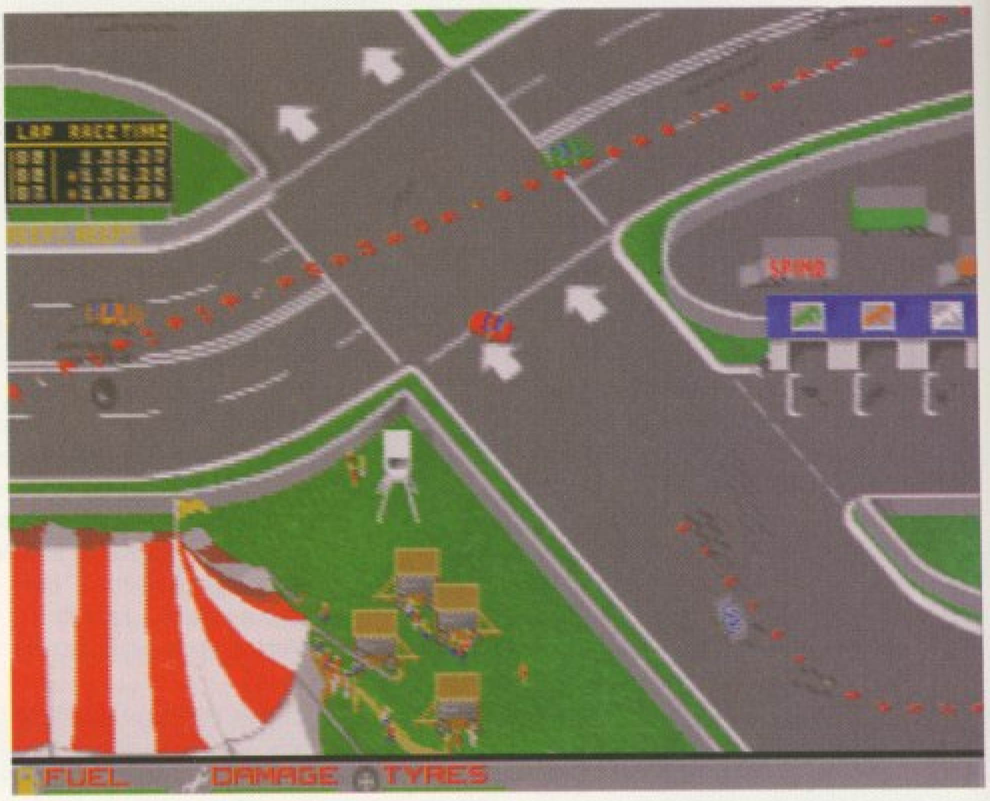
In my book it's hard to beat a decent driving game in the Super Sprint mould. There has been a steady stream of shareware racers over the last few years (including MooseDrive, which I must accept partial responsibility for), and this Blitz Basic effort is amongst the best so far.

This is a three track version, with the third only being included as a computer-driven demonstration, but the first two are fully operational. There are ten cars in total, of which one or two can be player-controlled whilst the rest are driven by the computer.

Screech is extremely well presented and features some excellent graphics. The tracks themselves look lovely, although as the race wears on and the cars leave rubber and so on all over the place, they do deteriorate somewhat. The multicoloured race cars are well drawn too, and it's clear much time and effort has been lavished on making Screech look the part. It plays extremely well too, with the cars being generally responsive and nippy. It could just be me, but the handling seems to change during the race too. Other nice touches include beasties running onto the track, which you may well wish to acquaint with your front tyres.

For those willing to register, US $12 or 15 Aussie ones will get you at least four more tracks and a host of extra features. Also planned for the future are (deep breath): pit

Dare I say it... MooseDrive has serious competition from Screech



EMU CPC

Programmed by: Stephane Tavenard
Available from: Roberta Smith DTP

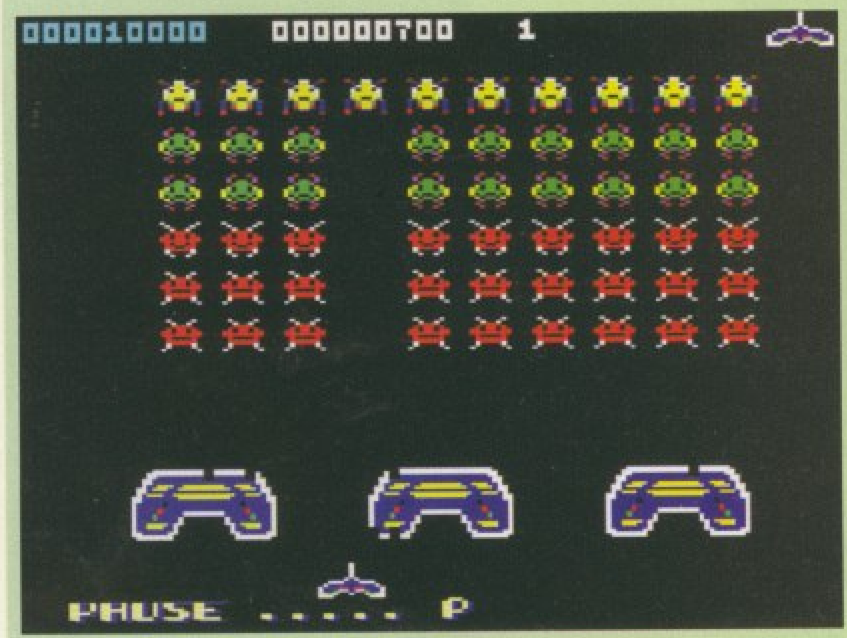
In a moment of extreme boredom recently, a friend of mine dug out his old Amstrad CPC464 and a large cardboard box full of games cassettes, many of which had retailed at the wonderfully generous price tag of £2.99. It was a calculated, evil move on Pete's behalf which meant that for hours on end in the following few days Arkanoid once more held a small but significant proportion of the populace in its sway. Yes, we sifted through that cardboard box and systematically relived those halcyon 8-bit days, enduring the trauma of a ten-minute wait for a multiload epic (the console kids of today have no patience!), only to wince at the painfully poor animation and bleepy sound effects. At the end of the day, though, it was always Arkanoid that found its way back into that horrific plastic datacorder.

I was never an Amstrad owner myself, having been introduced to the computing world by that technological wonder the Acorn Electron, but I spent many a happy hour in the good old carefree days of childhood bouncing a ball off a wall and shooting coloured bricks with a laser. Such was life.

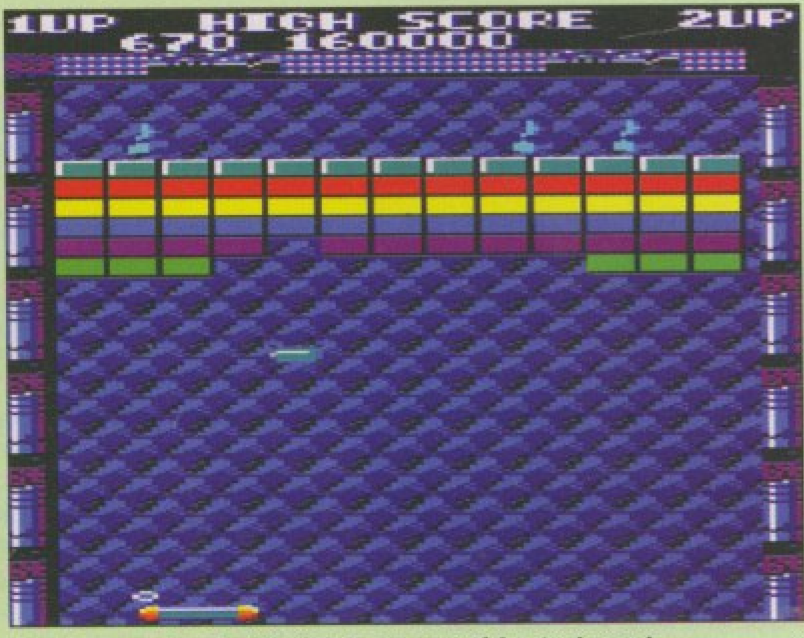
Imagine my glee, therefore, when what should I find generously squeezed onto the Emu CPC disk but a collection of games amongst which lurked Arkanoid. "Aha!" thought I, and without further ado I hastened to the garish Amstrad intro screen and proceeded to run that very program.

Running Arkanoid on the Amiga proved to be an interesting experience. I had expected my humble fast-rammed A1200 to run appreciably slower than an antique Amstrad, because emulation always is a rather pedestrian experience. But it takes incredible adeptness to keep a ball in play for more than a couple of seconds when, as the Speed program soon pointed out to me, you're running at 35 per cent of Amstrad speed.

So the moral in this little story is... either have a spankingly fast Amiga on which to emulate a dated machine, or dig around in the loft (or that of a friend, but don't forget to ask his or her permission first because unfamiliar lofts can be scary places), until you uncover the little beauty itself. Still, Emu CPC is a nicely written emulator which, if your Amiga is up to it, runs CPC disk software flawlessly. It can load programs in snapshot formats or in big disk files, features lots of handy options, and comes with a handy Amstrad disk image converter written by John Girvin.



Hurrah! Arkanoid makes a welcome (albeit rather slow) return



Invaders, running at a blinding 35 per cent of Amstrad speed

stops, car damage and fires, more race track invaders, a team management option, a modem connection mode, emergency service vehicles, and an AGA-only three player split screen mode. If all these are added to an already impressive title, Screech looks set to become the definitive shareware racer.



Screech's simultaneous two-player mode is highly entertaining too

AMITOOLBAR

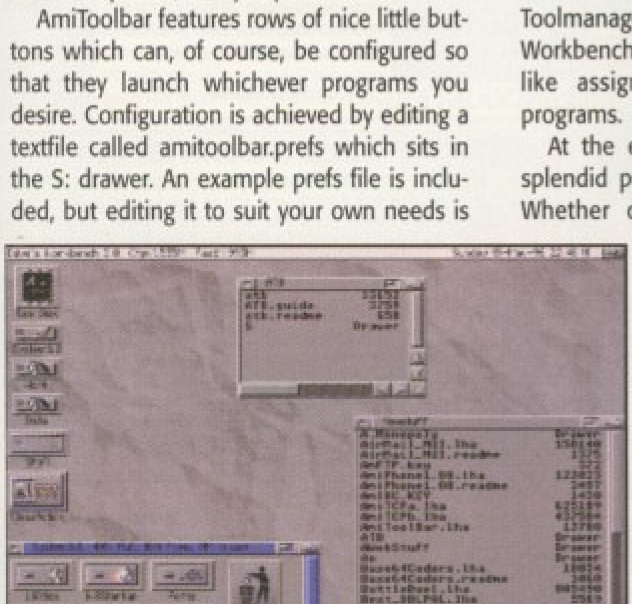
Programmed by: Daniel Balster
Available from: Aminet
(util/wb/amitoolbar.lha)

AmiToolbar is an attractive MUI program launcher which sits happily at the bottom of your Workbench screen, looking pretty and being generally helpful. It is not to be confused with ordinary vanilla Toolbar which was reviewed a couple of issues ago, and which the mint-choc-chip AmiToolbar is, in my humble opinion, vastly superior to.

AmiToolbar features rows of nice little buttons which can, of course, be configured so that they launch whichever programs you desire. Configuration is achieved by editing a textfile called amitoolbar.prefs which sits in the S: drawer. An example prefs file is included, but editing it to suit your own needs is a simple task using memacs or a similar text cruncher. Then the program can simply be launched from the shell or by clicking on the pseudo-icon and entering some arguments.

AmiToolbar has the standard MUI "Ooh, it's so lovely" appearance, something that the age-old Toolmanager doesn't have, as well as some nice memory usage graphs and a little command line window. On the other hand, Toolmanager lets you place little icons all over your Workbench which can look even tastier than AmiToolbar if chosen wisely. Toolmanager also lets you add items to the Workbench Tools menu and do silly things like assigning sound effects to certain programs.

At the end of the day, AmiToolbar is a splendid program well worth checking out. Whether or not Toolmanager users will switch to AmiToolbar remains to be seen – they are both excellent utilities, and if you've got a hard drive you really cannot afford to be without at least one of them, but which you plump for is really a matter of personal preference. However, to run AmiToolbar you will require a minimum of a 68020 machine and a copy of Magic User Interface version 3.2.



AmiToolbar: see how lovely it looks nestling at the base of the screen...

CHARLEY CAT: QUICKIES VOL #1

Produced by: Anthony Whitaker
Available from: Roberta Smith DTP

After starring in several feature-length animated adventures, Charley Cat makes his debut in a new series of computerised cartoons designed to run on standard 2Mb A1200s. If you own such a machine you may not have met Charley before, because in the past superb productions like Cowboy Cats (the twelfth Charley Cat adventure, reviewed in AC95), have required beaucoup de memory.

Charley Cat is a character invented by Mr Whitaker, and is most definitely not to be confused with the similarly named (although, I believe, differently spelt) feline who used to star in those irritating but informative 'Don't go with strangers' adverts of old, and featured on a particularly cheesy dance tune a couple of years ago.

Although this Bungee Jump-themed flick boasts the same highly impressive artwork and sound effects as its bigger brothers, it is much shorter (coming on only one disk as opposed to six). Gone are the disk-swapping blues that were the only drawback of the earlier epics. The end result is a humorous and enjoyable minute or so of entertainment. We eagerly await Mr Whitaker's next effort.



More animated antics starring Charley Cat

ONE FOR THE ROAD

F1 Licenceware
31 Wellington Road, Exeter, Devon
EX2 9DU
Tel: 01392 493580
E-mail:steve@f1lw.demon.co.uk

Roberta Smith DTP
190 Falloden Way, Hampstead
Garden Suburb, London NW11 6JE
Tel: 0181-455 1626

Your Choice PD
39 Lambton Road, Chorlton,
Manchester M21 0ZJ
Tel: 0161-881 8994

EPIC MARKETING
CD ROM SOFTWARE



The new Gif Sensation double CD gontains around 10,000 full colour images, Viewer and converters are included on the CD. Subjects include: Vehicles, Space, Science fiction, Textures, Landscapes, Sunsets, Money, Cartoons, Fantasy, Sports, Raytraced, Classic art. and loads more.

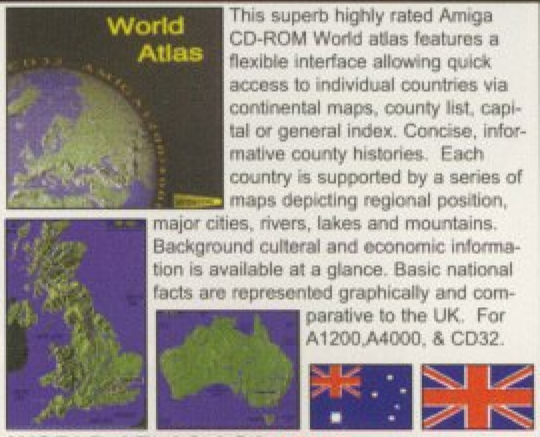
GIF SENSATION DOUBLE CD New Version (CD128) £19.99



Contains around 5000 erotic hand drawn Images in the Japanese anime tradition.
This CD is of an Adult nature and should not be purchased by anyone likely to be offended by drawings depicting nudity and / or sex acts.
An adult onlt cdrom!

Includes images only suitable for persons over 18

ANIME BABES Japanese erotic art (CD191) Only £19.99



This superb highly rated Amiga CD-ROM World atlas features a flexible interface allowing quick access to individual countries via continental maps, county list, capital or general index. Concise, informative county histories. Each country is supported by a series of maps depicting regional position, major cities, rivers, lakes and mountains. Background cultural and economic information is available at a glance. Basic national facts are represented graphically and comparative to the UK. For A1200,A4000, & CD32.

WORLD ATLAS AGA NEW !!! (CD220) £29.99



The new Magic Workbench CD contains the largest collection of Magic Workbench Icons, Backdrops and tools ever compiled. Includes well over 5,000 Magic WB Icons, Over 600 specially selected Magic Workbench backdrops in 8, 16 and 256 colours, over 30megabytes of Workbench tools, gadgets, patches and desktop enhancer tools/utilities. The CD also includes Magic Workbench aswell as many other items never before released on any Amiga CD ROM. If you want to update/enhance you existing Workbench 2 or 3 then this is the perfect Workbench add on CD ROM. This CD is only suitable for any Kickstart2/3 based Amiga's such as the A500+, A600, A1200, and A4000.

MAGIC WORKBENCH ENHANCER v2 (CD187 £17.99)

The Adult Sensation Range

ADULT SENSATION ONE

Adult Sensation is possibly the Amiga's largest selling adult title. It features over **4,000** high quality 256 colour images of the "adult" nature. Image viewers and coverters are included for every configuration of Amiga. (OVER 18 ONLY) out now! (CD01) £19.99

ADULT SENSATION 2 The new batch

Adult Sensation 2 not only contains **4,000** new colour images but also includes tons of adult related samples, adult music modules, tons of adult stories, adult anims, black&white 70's photos, adult games and more. (OVER 18) out now! (CD115) £19.99

SEXY SENSATIONS

Available now, this CD contains around **2,000** especially chosen high quality GIF Images. Viewers & graphic converters are included for easy and quick access to any of the pictures on any Amiga. (OVER 18 ONLY) OUT NOW! (CD169) £19.99

ADULT SENSATION 3D EXCLUSIVE!

This CD actually contains over **2,000** true 3 Dimensional colour images. 3D viewing software and top quality 3D glasses are also supplied. ***Includes superb new Multimedia interface.*** (OVER 18) Available Now! (CD145) £19.99

ADULT SENSATION 4 (animations)

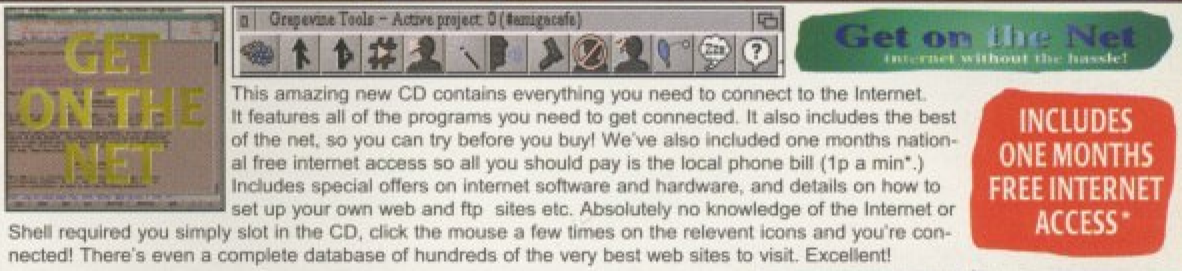
Available Soon this CD actually contains hundreds of naughty? animations/film clips for Adults only. Viewing software included for Amiga. Limited first stocks so order now for immediate despatch upon release. (OVER 18) (CD146x) £29.99

ADULT MENSATION

Adult mensation is a unique collection of colour photoshots of hunky men in various poses. The wildest most mouth watering man size Image selection ever. Whether you want bulging biceps or steaming shapley men then order this CD now! (CD164) £19.99

SPECIAL EDITION PACK
ADULT SENSATION PART 1 & 2
(Order code: CD180)
FOR JUST £29.99 + P&P

These goods are for Adults only, and will only be supplied to persons over the age of 18.



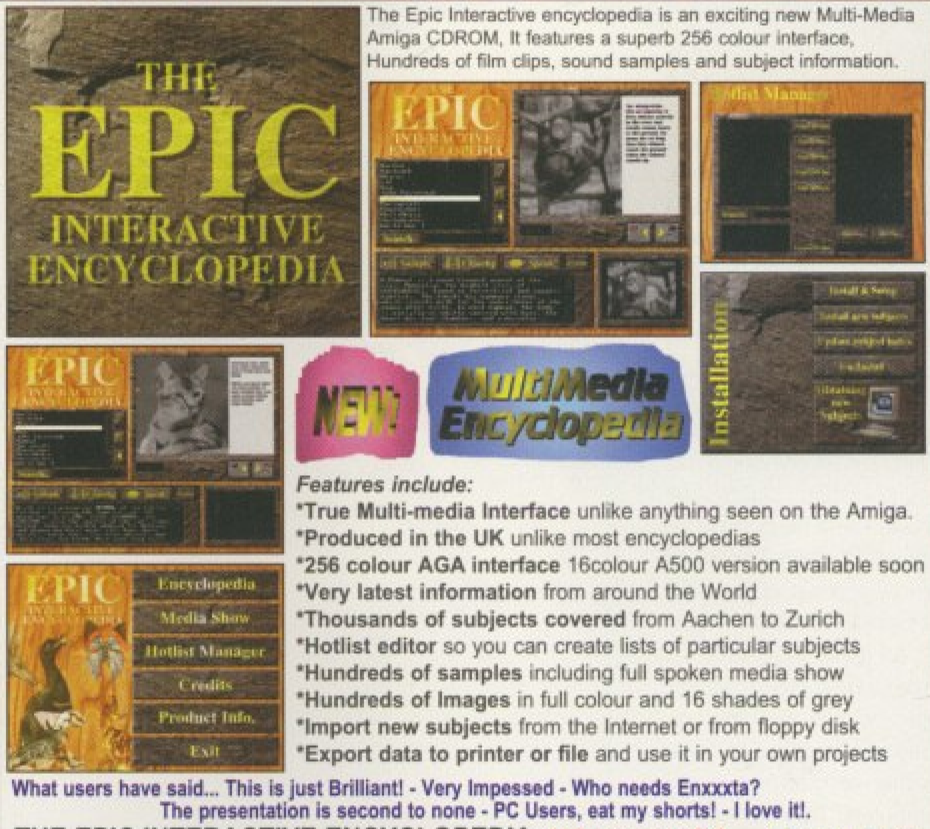
Get on the Net — internet without the hassle!

This amazing new CD contains everything you need to connect to the Internet. It features all of the programs you need to get connected. It also includes the best of the net, so you can try before you buy! We've also included one months national free internet access so all you should pay is the local phone bill (1p a min*.) Includes special offers on internet software and hardware, and details on how to set up your own web and ftp sites etc. Absolutely no knowledge of the Internet or Shell required you simply slot in the CD, click the mouse a few times on the relevent icons and you're connected! There's even a complete database of hundreds of the very best web sites to visit. Excellent!

INCLUDES ONE MONTHS FREE INTERNET ACCESS*

***This Amiga CD contains everything you need,**
***It's easy to setup and use,**
***It's supplied with one months free internet access,**
***It's great value.**

GET ON THE NET NEW !!! (CD221 £24.99)



The Epic Interactive encyclopedia is an exciting new Multi-Media Amiga CDROM, It features a superb 256 colour interface, Hundreds of film clips, sound samples and subject information.

NEW! MultiMedia Encyclopedia

Features include:
*True Multi-media Interface** unlike anything seen on the Amiga.
*Produced in the UK** unlike most encyclopedias
*256 colour AGA interface** 16colour A500 version available soon
*Very latest information** from around the World
*Thousands of subjects covered** from Aachen to Zurich
*Hotlist editor** so you can create lists of particular subjects
*Hundreds of samples** including full spoken media show
*Hundreds of Images** in full colour and 16 shades of grey
*Import new subjects** from the Internet or from floppy disk
*Export data to printer or file** and use it in your own projects

What users have said... This is just Brilliant! - Very Impessed - Who needs Enxxxta?
The presentation is second to none - PC Users, eat my shorts! - I love it!.

THE EPIC INTERACTIVE ENCYCLOPEDIA 4mb recommended (CD222) £29.99

CDROM TITLES
More great Amiga CDROMS

Aminet set one	24.99
Aminet set two	24.99
Aminet 10 feb'96	14.99
Aminet 11 april'96	14.99
Aminet 12 june'96	12.99
AGA Experience 2	19.99
Worms extra's	9.99
Software 2000	29.99
F1 Licenceware	29.99
Anime Babes (18)	19.99
Octamed 6	29.99
World info '95	19.99
17bit 5th Dimension	19.99
2000 Mysteries	21.99
The colour Library	9.99
Sound Library (2cd)	19.99
LSD Compendium3	19.99
Meeting at Pearls 3	9.99
CD32 Network set 2	34.99
Graphics Sensation	19.99
Illusions 3D	5.99
Super cars '95	4.99
Graphics Pack (5cd)	39.99
Super Bundle 10cds	19.99
1500 Utilities	5.99
Hottest4	4.99
Terra Sound Lib.	4.99



This data CD ROM contains the very best Adobe and Postscript fonts available aswell as thousands of high quality clipart images in PCX, IFF and EPS which are suitable for use in any graphics and Desktop publishing package. A great value CDROM.

BCI CLIPART & FONTS (CD192 £9.99)



Contains the very latest Amiga archives from the Aminet site. Includes games, demos, utilities, Graphics, modules, demos, product demos, comms, patches, fonts, clipart. blah! blah! blah! Available now!

AMINET 12 June'96 (CD224) £12.99



Contains over 10,000 old Commodore64 megademo's, Thousands of classic C64 sid tunes that sound exactly like the real thing, C64 pictures, C64 information and C64 emulators. Great fun!

C64 SENSATIONS 2 (CD223) £19.99



This brand new updated CD contains the very latest AGA utilities, demos, Images and games. All accessable directly from the CD. The makers claim there are virtualy no duplicated files from the first CD.

AGA EXPERIENCE 2 (CD210) £19.99



Zoom 2 includes the very latest sofware upto April'96, It includes the very latest games, demos and utilities. It also includes over 100 new klondike cards, The complete Active Pro pack, over 50 disks of samples, 25mb of Magic Workbench and a special "programmers" section.

ZOOM 2 (CD211 £19.99)



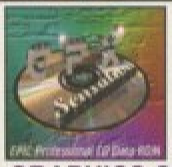
This data CD ROM includes hundreds of high quality Advanced Military images, including hundreds of different aircraft and helicopters. great for just browing or desktop video/publishing.

ADVANCED MILITARY (CD219 £6.99)



This CD includes over 5,000 brand new levels and maps for the game "Worms" aswell as game patches to update and enhance the features of the original game, If you love Worms, you'll love this.

OH YES! MORE WORMS (CD201 £9.99)



This most comprehensive collection of Lightwave and Imagine 3D objects ever compiled onto CD. It also contains hundreds of texture files, and example images. All files are usable direct from CD.

GRAPHICS SENSATION (CD02 £19.99)

FREE — CHOOSE ANY ONE OF THESE CD ROMS FREE WITH ANY ORDER OVER £25
ILLUSIONS 3D — PRO FONTS & CLIPART — HOTTEST 4 — TERRA SOUND LIBRARY

FREE FONE **0500 ONE FREE ONE 486**

E MAIL: epic@epma.demon.co.uk Trade enquiries welcome, Telephone: 0181 8730310 or Fax: 0181 8730311 All products and prices are subject to change without notice. E&OE *limited to UK residence only.

Ground control

The date: 17 February 1996; the time: 20:39 GMT. At Cape Canaveral's Complex 17, the countdown for Delta 232 has entered the final four minute count. Aboard is a spacecraft called NEAR, destined for an encounter with the asteroid Eros. Blockhouse engineers are conducting the last preparations as they are called out by the test conductor. At T-0, a large liquid-fuelled engine and six of the nine solid boosters will ignite, generating over 640,000 pounds of force, and lifting the 125 foot vehicle rapidly upward with an incredible light and sound show.

At Hangar AE, about five miles away, a group of engineers fill a large telemetry lab, monitoring more than a thousand measurements from the bird. They include people from NASA, McDonnell Douglas (the launch vehicle manufacturer), Johns Hopkins University (the spacecraft builder), and every contractor who has components on the Delta. No direct control over the launch is exerted from AE, but these people – more than you could fit into the blockhouse – are essential to the operation.

Eighty-six, 8-channel strip chart recorders, more than 50 video monitor/callbox stations, and three high-speed printers present the data within the building. The data is also being sent to Aerospace Corporation in California by 56Kb data lines, and locally to Complex 17 and the E&O building, where other company engineers can follow every step. Also in Hangar AE, a number of management personnel sit in the Mission Director's Center where they can communicate with the pad and every worldwide site involved in the operation. During the launch, displays will show them the occurrence and time of each important event, and all of this data is processed by a group of powerful computers in the back of AE – a set of Amigas.

Wait a minute! Amigas? Not IBM or Honeywell mainframes? Hey, this is a $112 million spacecraft, give or take, not counting the cost of the booster and launch. Are these engineers really looking at data processed entirely on $2500 computers? They are indeed.

Since 1987, the Amiga has played a little-known role in over 100 launch operations of the two principle United States unmanned launch vehicles – the Delta and the Atlas-Centaur. These programs have not enjoyed as much publicity as the manned programs, but over the past 36 years they have lofted more than 300 scientific, communications, weather and navigational satellites and probes, and with a high degree of reliability. To see how and why Amigas were used, a little history is required.

The Delta, first launched in 1960, consisted of a Thor booster and a second and third stage based on technology developed for the Vanguard launch vehicle. It was built by Douglas Aircraft and others, and program management was done for NASA by Goddard Space Flight Center. The Center placed a team at Cape Canaveral mostly made up of ex-Vanguard people. Called the Field Projects Branch, we were housed in the same Hangar S that was used to prepare the Mercury missions. We built and operated a small telemetry station that NASA engineers used to monitor Delta pad tests and launches.

The primary function of telemetry is to tell us about things that are going right or wrong with a very expensive craft that may be thousands of miles away. Without accurate analysis of errant flight events, engineers would be powerless to fix the problem for the next flight. Project managers who decided to save money by cutting back on telemetry coverage have often regretted it.

The general rule is to try to have coverage (radio reception) during all critical events, which include powered flight phases, stage separations, and reorientations. This is why the Air Force and NASA have long maintained a string of telemetry and radar stations along the typical flight path to the southeast of the Cape, and ships and planes that could fill in any critical gaps. But many of the potential flight problems can be uncovered in the month or so during which a launch vehicle is erected on the pad and is run through many tests and simulations. NASA took the approach that having its own engineers both at the pad watching ➤



The Near Earth Rendezvous (NEAR) spacecraft embarks on a journey that will culminate in a close encounter with an asteroid. After a one-day delay, a Delta II expendable vehicle lifts off at 3:43 p.m. EST, February 17, 1996 from Pad B at Launch Complex 17 on Cape Canaveral Air Station carrying the NEAR spacecraft. The launch of NEAR inaugurates NASA's innovative Discovery program of small-scale planetary missions with rapid, lower-cost development cycles and focused scientific objectives. NEAR will rendezvous in 1999 with the asteroid 433 Eros to begin the first long-term, close-up look at an asteroid's surface composition and physical properties

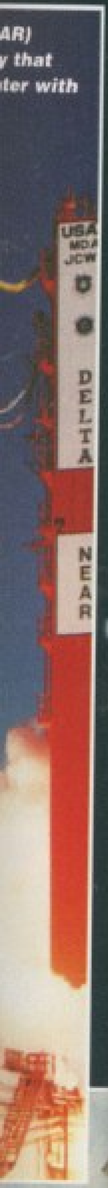
Picture courtesy of NASA

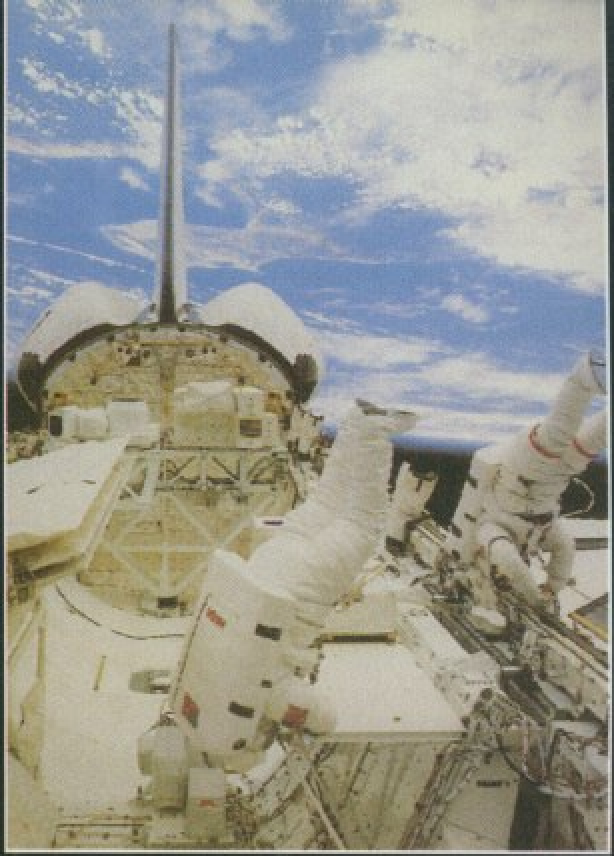


Hangar AE, home of the Expendable Vehicles Telemetry Station and Mission Director Center, is located on the Cape Canaveral Air Station, Florida

Retired NASA engineer **Hal Greenlee** sheds some light on the Amiga's involvement in the **US space** program

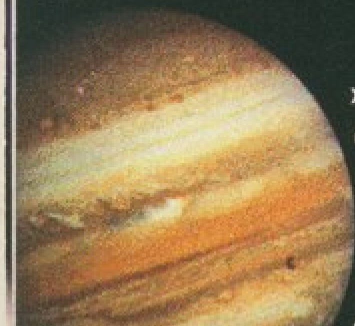
AR)
y that
ter with











TIME TRAVELLING

Going back for more history, improvements to the 1000 systems came steadily. Although Byte-by-Byte stopped making the PAL box, I found an engineer who had worked on the disk controller. He had finally got the SCSI section working, so we got him to sell us kits to upgrade our cards. We were then free to use more, larger, and faster storage drives.

Before long, I wanted a replacement for these cards, which wouldn't run some devices. I discovered that I could cut a GVP Series 1 SCSI card in half and it would fit inside the PAL box, so we did that. Then we could use Bernoulli 44Mb drives which helped us preserve and transport software easily. Also, some users brought us data on 9-track tapes; our tape deck had an ISA bus SCSI controller, so we ran it from a bridgeboard inside a 2000. By 1991, we were moving along with plans to replace the 1000/PAL Box systems with Amiga 2500s. This required Charlie to re-do our DMA input and output cards which was not so easy because the original square card was already crowded, and the Zorro II card had less real estate available. Since the A2630 68030-25 accelerator cards would only take 4Mb of RAM, we soon added DKB's 2632 cards to them, allowing up to 112Mb worth of SIMMs.

Then I found a new product at a show, called (no kidding!) the CSA Rocket Launcher – it was a CPU/FPU speed doubler for the A2630. It gave a big performance boost, so we soon had one installed in

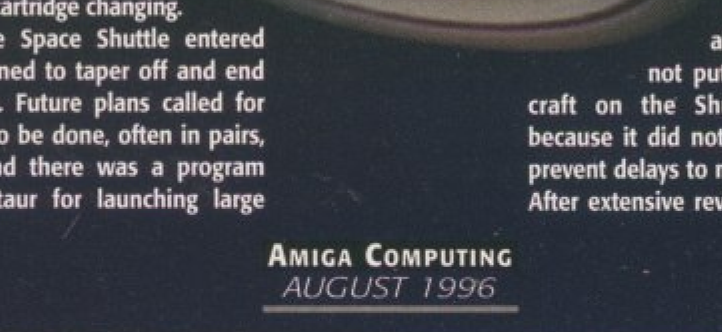
operations, and at an independent telemetry facility scrutinising test data, gave an extra measure of insurance, well worth the cost.

By 1961, the Branch moved next door to Hangar AE where there was more room, badly needed for a larger telemetry station and antenna towers. The early Delta had about 130 measurement channels, and these were displayed mainly on strip chart recorders, which engineers stood over in rapt attention during major tests. Computers were not essential at that time for telemetry display, but then we got more work. NASA Headquarters decided to move management of the new Atlas-Centaur launch vehicle from Marshall Space Flight Center and its field organisation, overburdened with work on the Saturn manned boosters.

Lewis Research Center became the new managers; we, by this time known as Goddard Launch Operations, were handed launch responsibilities. This vehicle had a standard Atlas first stage, but its Centaur second stage had something new: the first liquid hydrogen-liquid oxygen engine system, which offered a big gain in performance. Much that was learned in developing and flying the Centaur stage was valuable to the Saturn and Shuttle programs. The Centaur's complex nature required about 500 telemetered measurement channels.

MEASURING UP

We decided in the late 1960s to buy a Raytheon 703 minicomputer for Hangar AE to help process all these measurements. This machine had 64Kb of core memory, and no disk drive. It was programmed in assembly language, and data was entered on paper tape or punch cards. But the volume and complexity of the Centaur telemetry, with its PCM (pules code modulation) links and hundreds of 'discrete' (on/off) channels and, likewise, upgrades to the Delta telemetry, made it necessary to replace the 703 in the mid-1970s with a pair of Raytheon RDS-500s. They had a total of 256Kb RAM, and sported 10Mb disk drives the size of small washing machines. For a single vehicle, one machine had to process data, while the other generated displays. Even so, not all the data could be handled, including Centaur's guidance data. With two pads for each of the two birds, and multiple simultaneous operations getting to be more frequent, the minis required constant switching and hard drive cartridge changing.



In the '80s, the Space Shuttle entered service. NASA planned to taper off and end the Delta program. Future plans called for satellite launches to be done, often in pairs, by the Shuttle. And there was a program called Shuttle-Centaur for launching large deep-space probes – more risky and complex by nature than anything before. It required taking a special Centaur (cryogenic-fuelled, remember) stage into orbit in the Shuttle's cargo bay for on-orbit release and launch.



The Mission Director Center provides project management with a ringside seat with worldwide communications, video displays, a countdown clock board, and a real-time events display

A Honeywell DPS-8 mainframe computer costing millions of dollars was bought for a new facility to support Shuttle-Centaur and other Centaur operations. AE was too small for this monster, which filled a large room and had about 30 people devoted to its care and feeding. AE had other problems. By 1984, Raytheon was telling customers that the 500 was obsolete, and support for its assembly language (in which all our real-time software was written), and hardware was soon going to end. Unmanned Launch Operations, as we were called after our transfer into Kennedy Space Center, had an uncertain future, and an overloaded, obsolete computer system.

1986 brought the tragedy of the Challenger accident. In its aftermath, many decisions were made that affected the unmanned programs. One was that Shuttle use for commercial launches would be minimised; only launches that required manned presence, had national priority or required the Shuttle's lift capability would continue. The Air Force also decided that it would not put any more of its spacecraft on the Shuttle unless necessary, because it did not have enough control to prevent delays to military project schedules. After extensive reviews, NASA also decided to scrap the Shuttle-Centaur project as too dangerous; only non-cryogenic (but lower performance) booster stages would be launched from the Shuttle. So the Delta program would continue to be needed after all. NASA's participation in the new facility was cancelled, and the Honeywell DPS-8 became a computer in search of a home. It was too large and expensive for AE's purposes – we needed smaller, reasonably priced computers. But what would we choose?



The 4000 motherboard/Warp Engine combos are installed in these tower cases, providing more room for plug-in cards and drives

Some of us at AE had experience with Motorola 6809 and 68000 processors. Dave Brown, the programmer then in charge of the Raytheons, had done some projects using the VME bus/68000 series cards. I did several 6809-based projects in assembly language. We liked the straightforward programming model the 68000 presented, with its linear memory addressing as opposed to the convoluted segmentation scheme used

each of them. We then had a system running at 3.5 times the speed of the original 1000 systems, and with no practical RAM limitations.

Conscious that PCM data rates would be increasing, we wanted to use the Amiga 4000 as our third-generation machine. We thought we would be able to buy 4000Ts in early 1994, but instead, Commodore went bust. As I was retiring in May '94, the new plan was to buy 4000 desktop machines, put the motherboards in Micronik tower cases, and put 40MHz 040 Warp Engines in them.

NASA was able to get about half the 4000s needed, but had been waiting for five units from a local dealer for many months. That November, I went to the Computer 94 show in Cologne, hoping for a miracle. A German friend made some calls for me while I was there, and we found a dozen 4000s in a store 150Km. away. Problem solved.

The pictures show these tower-cased machines. They may not look like Amigas but they are working very well, thank you. Charlie Michael recently designed new dual-ported RAM I/O cards that side-stepped delays due to the DMA process in the original design. Now the system hard drives are gigabyte capacity, and the Bernoulli's,150Mb size. DAT tape is used for backups, and CD-ROM read/write drives provide more permanent storage.



The AE Telemetry Lab gets very crowded on launch day. People come in from every contactor involved in the launch vehicle or spacecraft

by the Intel processor. But in 1985, there were no complete, low-cost computers based on the 68000; there were only mini-computers costing $30-50 thousand (1996) that were too expensive for our needs.

Are you surprised that cost would be an important factor in doing a NASA job? Fact is, there has always been more pressure on the unmanned space projects to keep costs low. Supplying all parties concerned with the best telemetry and communications possible is valuable insurance against unnoticed problems and consequent failures, and that has always been Hangar AE's major service. But like all insurance, its benefits are measured by the customers (the management of companies involved in a launch project) against the cost (of operating AE, partly paid by them). Skip Mackey, who very ably ran the Hangar AE facilities for 36 years, was vigilant in ensuring that we operated efficiently and cheaply, and with the flexibility to provide new services, often needed at the last minute. Replacing the Raytheons was going to have to be done at low cost, or Skip would not go for it.

> "The job: pretty much the same as 36 years ago; more complex, and lots more red tape..... but the Amigas have done everything needed, and have made it more fun"

Dave Brown, myself and others were reading about the new 68000-based Atari ST during 19885, but decided it was too limited for AE's purposes. Then we heard about the Amiga 1000. A nearby store started to carry them in late '85, so I went by to get a demonstration. I had the same reaction that many of us may remember: amazement! Here was a relatively low-cost computer that did things no other small computer could! After a while, I brought one home, and then took it AE for show and tell. Dave Brown was also impressed, and got one for himself. The Amiga fix was in.

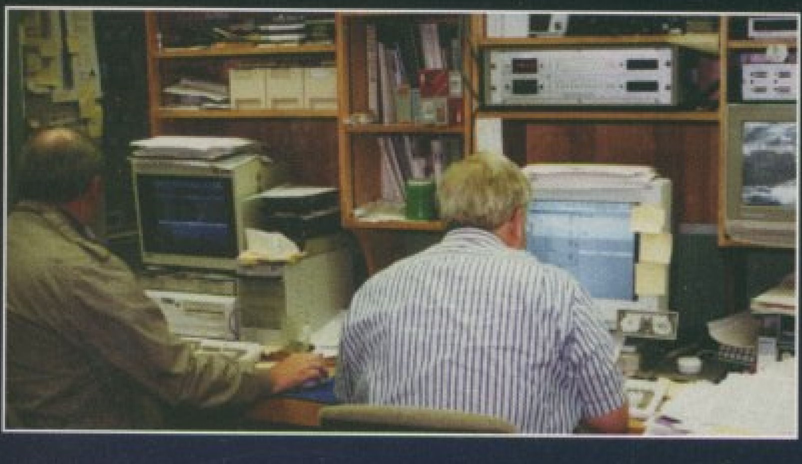
Cost was not a problem in replacing our minis with Amigas, but some other things were. A well-made peripherals box was needed that would accept accessory cards and hard drives. It would have to include a hard disk controller card, and additional slots for DMA data input and output cards of our own design. We looked at designs by MicroForge (huge and slow), CSA and ASDG (just card frames) without much enthusiasm.

Then a Texas company called Byte-by-Byte announced its PAL 1000 box. It offered everything we wanted: five Zorro I slots, three hard drive slots, an extra megabyte of RAM and a clock. It was well buffered and powered, and sat conveniently on top of the 1000. Most importantly, it came with a disk controller, developed jointly with Commodore – this was the forerunner of the CBM 2090A.

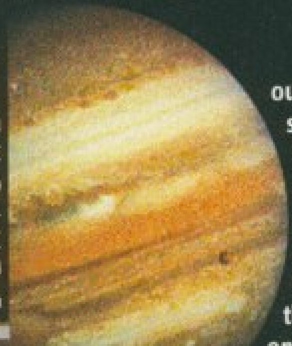
At the time, Commodore hadn't gotten the SCSI part of the card to work, so PAL boxes came with 42Mb ST-506 drives. We bought the first PAL box produced, and ten more later. This item made it possible for us to use the Amiga. It gave us the same and more capability that the 2000 would have later, but by the time the 2000 came out, we would have gone another way. Note: the PAL box design was done by Brad Carvey of Video Toaster design fame, and comedian Dana Carvey's brother.

Another problem was that we needed floating-point processing, and a faster CPU than the 68000, even with the load split between the three operational Amigas. We found a 68020 card, the Ronin Hurricane, that had a doubled clock speed, a true floating point co-processor, and space for 4Mb of 32-bit RAM. This, with our custom cards, completed the setup for our first operational systems.

While the RDS-703 and RDS-500 software had all been done in assembly language, the decision was made that all Amiga coding would be in C language. This allowed maximum ease for the constant upgrades and additions that would be needed, and good portability, in case another machine change became necessary. Although not as fast as machine language, C certainly was better than high level languages. Care was taken to ensure that multitasking was preserved and that the same software would run on all Amigas for all missions. We started with the Manx Aztec compiler, switching to SAS/C when it became necessary. We named



Dave Brown (right) and Gary Jones at the machines they use to generate and debug C code for Hangar AE's Amiga systems



our triple Amiga system 'CARDS' – Computer-Aided Recording and Display System. It has the power to handle not only all the measurements on one Delta or Centaur, but to deal with two or more tests on different pads at the same time. The programmers can shift the assignments of data handling between Amigas in real time without shutdowns. Usually, there is one Amiga on each vehicle during its prelaunch tests, but the system is completely flexible. On a Delta launch day, the telemetry from that vehicle will probably be divided between the three primary Amigas, with three more as backups. But if Centaur wants to run tests also, it can simply be added to one of the machines.

RUNNING OUT OF TIME?

The present AE Amigas have enough power for a few more years, but telemetry systems speeds are being increased steadily. The Centaur presently uses a 256Kb PCM rate. The first Delta PCM systems ran at 13.89Kb but the new AUV systems run at 367 and 500Kb. Titan, which is occasionally used by NASA, is up to 800Kb. The Cassini mission to Saturn, with support beginning in late 1997, will use a Titan booster, and this project may push the Amigas pretty hard.

The computer team is looking at the 68060 cards that are available to replace the Warp Engines, but the potential of those cards will be somewhat limited until an optimised 060 compiler is available. Storm C includes 060 switches and looks good in demo form, but the working version is not available with English documents as of the time of writing.

SYSTEM SETUP

The basic system consists of the following elements: data is received by RF links directly from the missile, and also from landlines from the blockhouse; other telemetry sites may also be sources, always the case on launch day. The PCM (Pulse Code Modulation, now mostly used in preference to the older pulse amplitude, pulse duration and FM/FM) data is processed by a decommutator on each link. The digital data from all such sources is placed together on the telemetry lab's link multiplexer, a bus that runs at 7 megabits/sec. Each channel (measurement) value includes a tag that identifies it and its source. At the Amigas, the input cards contain dual-ported RAM where all the link mux data is stored, and the system software can then access the data which is needed, placing it in a large table in memory. This table, identical in all of the Amigas, is updated with every sample of every measurement, as each new PCM frame arrives at the input card.

The computer does various operations on the data in the table, including scaling the data from 0 to 100 per cent, converting to engineering units, or any special function. Translating a measurement to engineering units for video display or printout in numerical form is not usually a linear conversion. It involves fitting the value to a curve, and six coefficients are supplied by the vehicle manufacturer for each measurement channel. The curve and coefficients would vary with each transducer on board, for example, one that measures oxidiser tank pressure on the first stage. If that transducer fails and is replaced, we have to get the new coefficients, and again, they can be entered while the main program is running. A fifth-degree polynomial calculation by the Amiga, using those coefficients, provides an engineering value, which would probably be in pounds pressure in this case.

Another operation the computers do is to decommutate certain data that is included in a PCM link, but running asychronously at a frame rate different from the link's main frame rate. The new Delta II AUV (Avionics Upgrade Vehicle) has its guidance data embedded this way. The real-time processing is interrupt-driven, but the pre-emptiv multitasking is what makes it possible to do so many things while the program is running, such as changing sources, displays, channel assignments, scales, coefficients, and adding or removing additional tasks.

The output of all this activity? Each of the three Amigas feeds a video generator bank which can output 32 out of about 1000 possible video pages (for 'discretes', another 2000 possible pages). These pages use a large font, preferred by the users, which allows 16 lines per screen. Most of the 96 video outputs are fed to monitor/callbox sets installed in consoles throughout the building. Next to each monitor, the callbox has a numerical keypad and LED display. CARDS also drives large sets of DACs (Digital-to-Analog Converters), which in turn can drive about 700 strip chart channels. Engineers need these as a continuous record of a launch or test so they can see measurement levels and when various events took place.

For instance, if you were an engineer concerned with first stage tanking, you would have requested your tank pressure, temperature and level measurement pages beforehand. You could switch among those and any other pages of measurements from the vehicle with the keypad, the LEDs showing you which page is selected. The Amiga CARDS program allows you to key in additional measurements to one of your pages, or make a new page. You could also enter a request for a line printer printout of your data, step to the printer, and it would be waiting. And you would have your more important measurements being recorded continuously on nearby strip chart recorders, so you could check the recent history of your measurements.

Separate Amigas are used in the telemetry lab for other purposes. Some 2000s are used to control the DACs referred to above; others are used to program the decommutators that process the PCM data. Another Amiga runs the timing system display in the Mission Director Center. This rather elaborate system was originally run by a PC, with some very expensive C code done under contract, but the entire software was rewritten for the Amiga by Eric Anderson in a few week's work, and since then the timing system has been tailored to do the job better.

Hangar AE's three primary Amigas, in tower cases laid sideways, are visible on the upper shelves. Three more, lower down, serve as backup and auxiliary machines. Note that all equipment is on UPS'



SIMILAR SUPPORT

A smaller, but almost identical system was also installed at the Western Test Range (Vandenberg AFB, California), to support NASA Delta and Scout launches, which have been much less frequent. Some of our customers wanted to have a system located at their facility that would function like CARDS, driven by data from the Cape or WTR. Dave Brown developed a system where a single-Amiga CARDS could be remotely placed, and driven by data typically transmitted across 56Kb circuits. The remotes operate on a two-second delay, but receive all measurements correctly time-tagged, and the engineers at the remote site have the same ability to display, customise and print out all their data pages.

All software maintenance can be done at the transmitting end, including swapping the real-time executing software, rebooting, and verifying proper function. The remotes run the same software as the primary Amigas, with conditionals set to optimise them for their more limited job. Remotes are in operation at Lewis Research Center, Aerospace Corporation, and several facilities on the Canaveral Air Force Station and Kennedy Space Center.

Not limiting ourselves to launch vehicle support, Hangar AE has been able to provide data for spacecraft checkout and other special projects on a number of occasions. These include the GOES spacecraft, the GPS navigational series satellites, the ACTS spacecraft, the TOS third stage, and the Pegasus booster series, which are air-dropped from a modified L-1011 aircraft. Another extra has been supporting CAS (Customer Ancilliary Service) slow-speed data from the mid-deck experiments carried by the Shuttle; this data runs for long periods during flight.

The author, Hal Greenlee, would like to express appreciation to Dave Brown for assistance with technical information and reviewing the article, and to Floyd Curington for historical assistance. Opinions expressed are his own.

Anyone that read the results of our recent survey should be well aware that 91 per cent of our readers have seen the light and own a hard drive of some description. I was not too surprised at this because if you seriously want to do anything on your Amiga, even using the 'lite' versions of Final Writer or Wordworth, a hard drive makes using your Amiga so much more convenient.

The thing that did surprise me was the size of hard drive you readers own. On average it is a massive 600Mb, and if you couple this with the fact that again, on average, you have 7.5Mb of RAM, it shows that you readers really do have some beefed up Amigas. So for anyone who is still struggling with floppy disks, or is think about upgrading their current hard drive, now is the perfect time to buy one.

Thanks to the requirements of Windows 95 and general PC software, it pushes up the demands of the average user wanting to get decent performance out of their computer. Currently, the average PC user would need 16Mb RAM and a 2Gb hard drive to have a system that is comfortable to use, but your average Amiga user will get by quite happily with less than half that amount of RAM and hard drive space.

Price drop

This demand by PC owners for higher capacity hard drives and increased amounts of RAM has recently driven prices down. This means you can pick up a 1Gb hard drive for the same price that a 520Mb drive would have cost last year. Eyetech has jumped upon this and put together a one-stop solution for A1200 owners wanting a low-cost but high capacity hard drive. In about 15 minutes you can be the proud

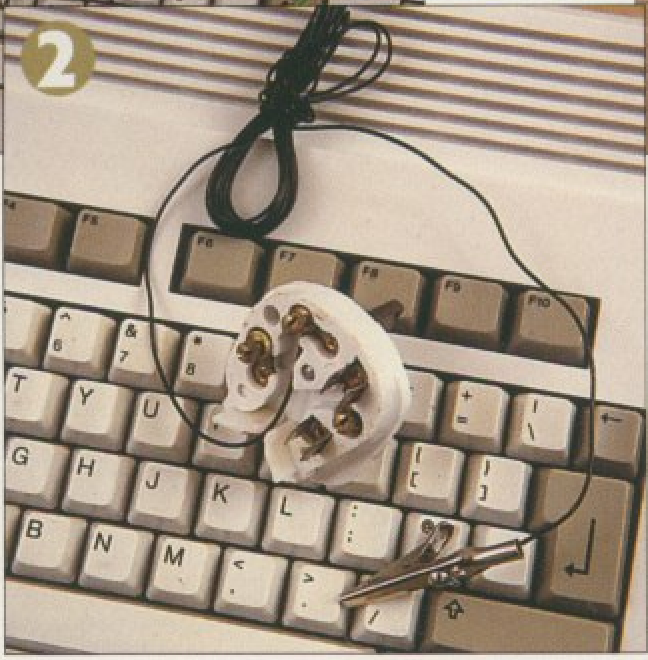
Eyetech has jumped upon the demand for higher capacity hard drivesand increased amounts of RAM and put together a one-stop solution for A1200 owners

Fitting the bill

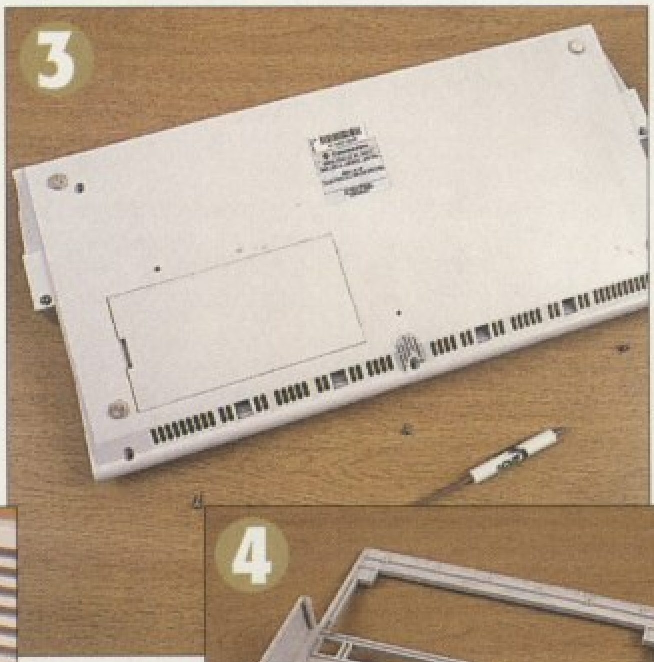
Eyetech has come up with a cheap, **all-in-one** hard drive solution for your A1200. **Neil Mohr** discovers what it does



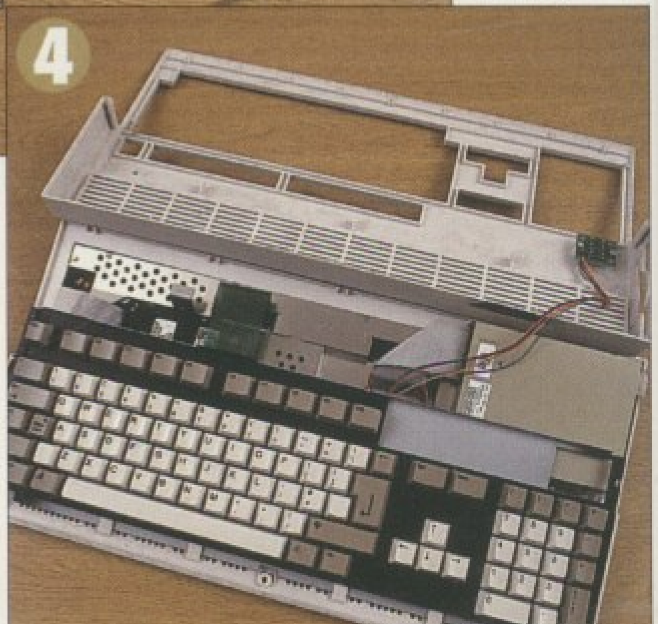
The slimline Seagate 1Gb hard drive is a perfect size for the A1200



Before you open up your Amiga make sure you take anti-static precautions. Eyetech recommend connecting yourself up to the earth of a plug



Once properly earthed, disconnect everything from your Amiga, flip it over and remove all the screws from the casing



Carfully flip the top back and you are ready to remove all your A1200's innards

...upon
...her
...and
...of RAM
...one-stop
...owners

...me

...drive

...hr

...does

...ce properly
...d, disconnect
...hing from
...miga, flip it
...nd remove all
...ews from the



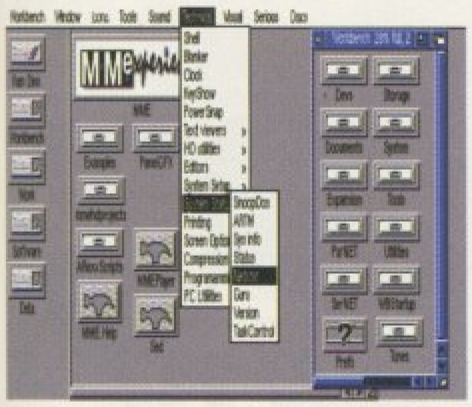
RIGHT FROM THE START

As standard, the hard drive is set up with four partitions as opposed to the normal two. I think this is a little over the top but there is nothing to stop you from repartitioning the last three because they are all empty apart from one that has a demo of MME experience.

Eyetech has also programmed the hard drive with ToolsDeamon running so all the extra programs available are accessible from the normal Workbench menu on bootup, which makes things easy enough. I would have preferred to have seen a few more of the standard public domain Workbench patches that everyone seems to use, such as MagicMenu, Cycle2Menu and something like Yak or MCX. Another slight niggle is that although there are extra DataTypes on the hard drive, they are hidden away in the storage drawers where a beginner could easily overlook them. They really should be installed as standard, but at least they have hard drive recovery programs, along with scripts for reinstalling and repartitioning the drive.

If you are looking for a no-nonsense way of getting your hands on a cheap, high capacity hard drive, the Eyetech solution should be on top of your shopping list.

Eyetech has ...gether a one-...ers wanting a ...ard drive. In ...e the proud owner of 1Gb A1200, ready to run. Eyetech can supply either a 850Mb or 1.2Gb versions, complete with the correct power and interface leads and pre-installed with Workbench and a good selection of PD tools and utilities.



Workbench 3 and a number of PD programs are available pre-installed for you

Eyetech is using the 3.5" Seagate mechanism as its hard drive. This is not particularly fast or amazingly quiet, but it does have one major advantage in being approximately 15mm thick. By adding a couple of fixing legs with adhesive pads on the bottom, the hard drive can be easily positioned and fixed in place without the danger of shorting any of the drive electronics out, or getting in the way of the keyboard ribbon cable.

POWER

Due to 3.5" drive having a separate power supply, it comes with a modified disk drive connector so it can be powered off the internal disk drive power connector. Plug the connector into the power supply on the motherboard and then plug the disk drive power connector into the back of this. Once in place, the keyboard fits flush over the drive and the sticky pads fix the drive firmly in place.

Bottom line

REQUIREMENTS

RED *essential* **BLACK** *recommended*

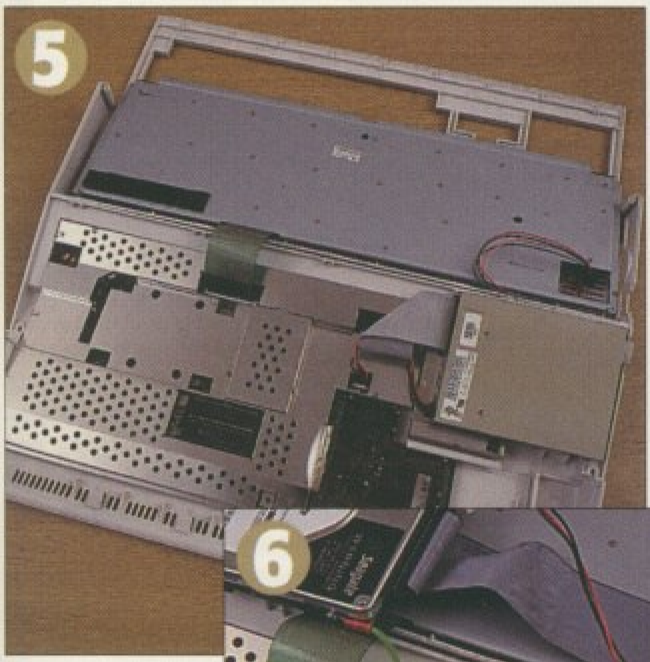
A1200

PRODUCT DETAILS

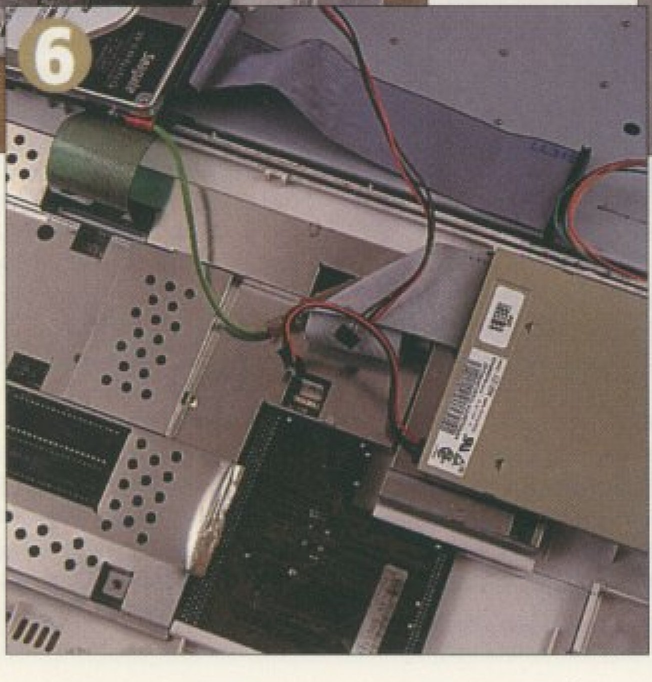
Product	Instant Drive
Supplier	Eyetech
Price	1Gb – £219.95 1.2Gb – £249.95
Tel	01625 713185

SCORES

Ease of use	92%
Implementation	88%
Value For Money	90%
Overall	90%



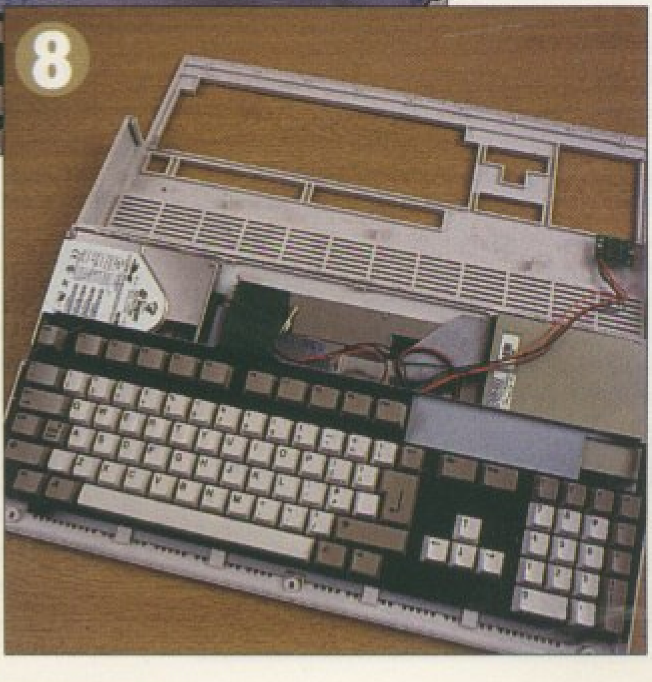
Flip the keyboard back out of the way and remove the existing 2.5" hard drive cradle



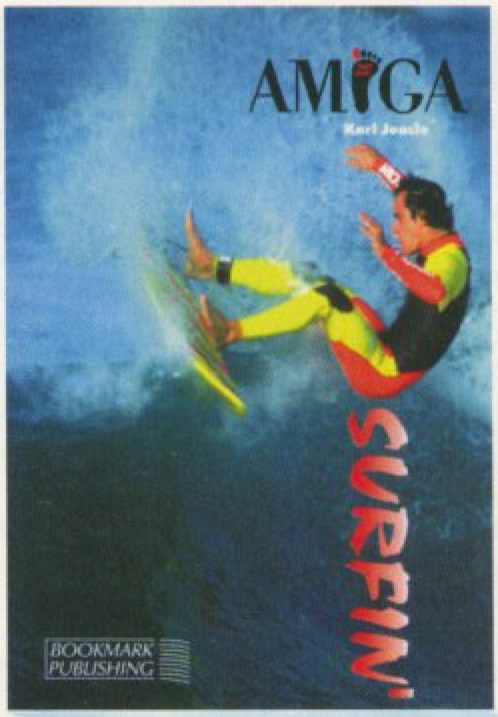
You now need to remove the disk drive's power connector and replace it with the hard drive's power supply, into which the disk drive power connector is plugged back into

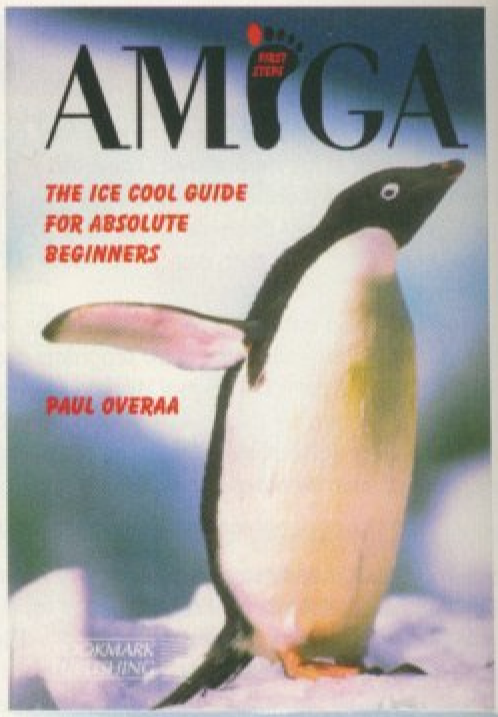


The IDE connector can now be plugged in and an insulating plastic pad is placed over the metal shield



Four adhesive pads keep the hard drive firmly in place. Your A1200 can now be reassembled and you are ready to try out your all new 3.5" drive





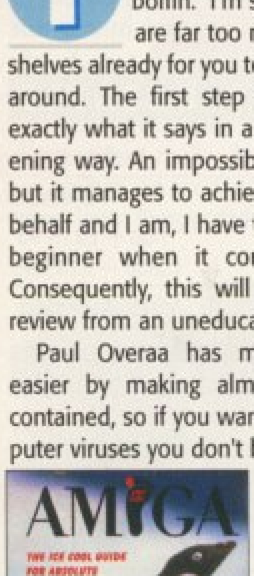
Learning the easy way

These two books in the Amiga **First Steps** series make Amiga learning easier. **Liz Ogden** tackles her first Amiga review

ICE COOL GUIDE FOR ABSOLUTE BEGINNERS

To be precise, this comprehensive book isn't one for the total Amiga boffin. I'm sorry to say, but there are far too many of those on the shelves already for you to scramble your brain around. The first step series claims to do exactly what it says in a creative and enlightening way. An impossible task you may say, but it manages to achieve confidence on my behalf and I am, I have to admit, an absolute beginner when it comes to the Amiga. Consequently, this will be a totally honest review from an uneducated user.

Paul Overaa has made your life even easier by making almost every topic self contained, so if you want to read about computer viruses you don't have to have read the previous chapter to understand it – all you need to do is turn to that page without referring to any other. However, it is recommended that you read chapters one to five as they contain lessons of importance that every Amiga user should know about.



When your brain has not absorbed too much information, you can browse the book in sequence or be a rebel and read the chapters in a Japanese manner from back to front. A marvellous introduction because we all know how annoying it is to have to flick through 500 irrelevant pages before you eventually get to understand the page you are actually interested in.

USER-FRIENDLY

Every page is illustrated with a user-friendly layout, something all books should contain. It is not overwhelming with regard to the number of pages which is good to see as there is nothing worse than getting a pocket sized handbook for beginners that is closer to resembling an encyclopaedia.

If you haven't guessed by now, this is certainly not a book for the computer expert who wants to know everything one step ahead of the computer itself. It does, therefore, consistently deal with the basics on topics ranging from the necessities of looking after your disks, information on the workbench, Amiga documents, and using DOS, to the more simplistic tasks of copying files.

This book can solve all your deadly fears about the Amiga and actually get you started, without the sarcasm of the more technical texts that begin with 'first turn your computer on'. Do yourself a favour and read what the first steps series has to offer.

AMIGA SURFIN'

For those of you who are not fully acquainted with the Information Superhighway yet, looking at the cover of this book might make you think what the term surfin' really means. Don't be confused with all the jargon that accompanies the Internet, it really isn't all that difficult to master once you've actually been surfin', as it is called. It's a tool and a great asset in broadening your level of understanding, together with expanding on your number of contacts.



The author, Karl Jeacle, has included a chart of the Internet at the start of the text so as you gradually read on you will get to understand it more. This book is aimed at getting your TV-hooked-up-Amiga linked to the powerful Internet.

Its aim is not to overload you with too much technical information but to explain the best way of hooking up your computer to experience the Net. Take note from the author himself if you are thinking of getting connected. It doesn't mean you have to change your system altogether – just some extra RAM and a hard drive is enough to begin with. Although the book may look very technical when you flick through it, the topics have been carefully selected and related to the Amiga user. Many specialised texts like to waffle about the history and advantages of this incredible technology, and you will find some of that information contained within, but only the necessary amount that you need to understand. The remaining concentrates on getting you to work your way around the Internet in conjunction with the Amiga.

I can guarantee that if you are already thinking of installing the Internet into your home, after reading the first three chapters of this book you won't need any persuading. It's not a completely different world, it just takes a while to adjust to the style of language and understand the jargon. Once you have read the the part about getting Internet streetwise, and the following chapters, you'll have nothing to worry about or to stop you from contacting your friend down the road or a high profile celebrity in Kuala Lumpur.

If you've not gathered already, there is too much for you to miss out on here, so spend a little time to read through the relevant chapters and get surfin'. AC

Extending the family

Another printer springs forth from the fertile loins of Epson. **Neil Mohr** takes a look at what it can do



In some ways Epson can be thought of as the grand daddy of computer printers. It has been around since the beginning of time and its original Epson dot matrix printers set the standard that made sure every printer was Epson compatible. Years later, Epson is still producing top quality printers

The Epson 5500 is a 600 dpi laser printer that has full LaserJet 4 emulation, along with emulation of Hewlett Packard's GL/2 plotter commands. Physically, the printer is very compact, measuring around only 14 inches wide by about eight inches deep, without the paper tray being down, and stands nine inches high. Overall, it seems to only take up about a third of the space of my DeskJet550C.

The lower front loading paper tray and the upper paper receptacle that folds out over the front can hold around 150 and 100 sheets of paper respectively. Controls are very sparse, with only a power switch and a single control button on the top of the printer.

When you first unpack the printer you have an extra two boxes – one contains the printer toner, that is the black ink on the paper, and the other is the laser printer's photo conductor unit that marks the paper where the toner will fix to. Once unpacked, both easily slip into place inside the printer, with the toner sitting on top of the photo conductor for quick and simple replacement when it does run out. The toner should last for about 3000 prints and the photo conductor should do around 20,000 prints before needingto be replaced. Obviously, this depends on the sort of printing you are doing.

If you remove the side panel and the metal casing underneath, there are two Simm slots. One is for the printer's own memory and the other is for a ROM module. Using a single Simm, the printer can have anywhere from 1Mb to 32Mb of RAM on board. Unless you are going to be doing complex postscript printouts or using a lot of downloadable fonts, 2- or possibly 4Mb of RAM should be enough.

The ROM module allows you to add new emulation modes, most notably the Epson Script level 2, that give the printer full level 2 Postscript printing abilities, at an extra cost of course. Another extra that Epson offers is a serial interface because as standard, the printer only has a parallel port. This will be fine for the majority of Amiga users, but if for some reason you need a serial printer, perhaps you need to work with Macs, then the option is there.

As the Epson has LJ4 emulation, you can use the standard Amiga LaserJet printer driver and get decent results straight away. Also, because the Epson does not come with any Amiga drivers or software, you will have to get copies of Studio II or Turbo Print if you don't have them. The main two disadvantages with the Amiga driver is that firstly, it only works up to 300 dpi, so you will never get the best out of the Epson, and secondly, you will be stuck with the poor 16 shades of grey output that the Amiga is still lumbered with.

Even with a third-party print package there are still problems, particularly when printing at the full 600 dpi which results in the print outs being very dark. This could be caused by the RiTech smoothing that is a built-in extra of the Epson, but there was no way of telling as the only way you can adjust the RiTech level is via the Windows software.

At the end of the day the Epson is an excellent printer. It is small, fast, quiet and simple to use. It is just a shame that you cannot get the best out of it from the Amiga. You can either blame Epson for not providing a specific Amiga printer driver or Amiga software, or you could just as easily ask "Why can't I have downloadable fonts, 24-bit print outs and prints at the full dpi as standard?" Unfortunately, we will have to wait and see what VIScorp can produce.

the Epson is an excellent printer. It is small, fast, quiet and simple to use. It is just a shame that you cannot get the best out of it from the Amiga

PERFECTING YOUR PRINTS

It's probably been said in just about every printer review that's been done in Amiga Computing, but if you want to get the best out of your printer, whether it be a top-of-the-range laser or just a lowly old 9-pin dot matrix, you need to get hold of some third-party software to allow you to get complete control over your print outs. Until recently, your only choice would have been Studio II, but with the recently released Turbo Print you have the choice of the two. Using the LaserJet IV emulation and playing around with the gamma settings, you could get reasonable results with the Epson.

Bottom line

REQUIREMENTS

RED *essential* **BLACK** *recommended*

Studio II/ Turbo Print

PRODUCT DETAILS

Product	Epson EPL-5500
Supplier	Epson UK
Price	1Mb – £399 5Mb Postscript – £799
Tel	01442 61144

SCORES

Ease of use	80%
Implementation	92%
Value For Money	92%
Overall	85%

ARexx for beginners Part 2

Command performance

Paul Overaa continues this guide, looking at variables and the functions they perform

Having explained what ARexx is and how an ARexx program is physically created, it's time to tackle some of the fundamentals of the language itself – beginning with those ARexx variables I introduced last month. With many computer languages, such as Basic, different types of variables have to be used to store different things. Text strings, for example, need to be stored in string variables, numbers in variables that have been especially identified as holding numeric values and so on.

ARexx is nowhere near as fussy in this respect and variables are able to hold text strings, whole numbers, even numbers with decimal parts, without you, the programmer, having to take any special precautions (this is what is meant by saying ARexx variables are 'typeless'). What's more, when you are dealing with numbers you can use addition (+), subtraction (-), multiplication (*) and division (/) symbols to modify the contents of those variables. You can use those same symbols to manipulate real numbers as well. If, for example, you wanted to get ARexx to print the result of adding 26 and 24 together you could just write:

```
say 26+24
```

Alternatively, you could create a couple of variables, set them to 26 and 24 respectively, and add the two variables together. If we chose a and b as the names of the two variables then the ARexx statements that we'd need to write would be these:

```
a=26
b=24
say a+b
```

The same result could be obtained by using another variable, let's call it sum, and writing:

```
a=26
b=24
sum=a+b
say sum
```

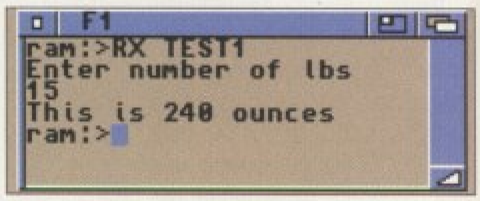
Either way, when ARexx looks at these statements it sees that it is dealing with numbers and provides 50 as the answer. If, therefore, you wished to write an ARexx program that converted pounds weight into ounces you could do it like this:

```
/* test1.rexx - convert lbs to ounces */
say 'Enter number of lbs'
pull lbs
result=lbs*16
say 'This is' result 'ounces'
```

Notice that there are three text strings in this



Those who don't like typing will find all the examples on the coverdisk



Remember you'll need to use the RX command from the Shell to run the example code

TIME TO TALK

When ARexx encounters statements that are not obvious errors, yet have no meaning to ARexx itself, something interesting happens – it transmits the statement using a mechanism known as the Exec messaging system. You don't need to know how these arrangements work internally (it's complicated), all you need to be aware of is that all programs which are able to receive these messages, i.e. programs which have an 'ARexx Interface', will be provided with an ARexx message port and this will have a name. To specify a particular program as being the destination for any statements that ARexx transmits you simply use this sort of statement near the start of your script:

```
address 'someportname'
```

You will find a very simple utility on the coverdisk this month called ACRexx which opens a small window, sets up and monitors an ARexx port (called ACRexx), and then sits there displaying any messages that it is sent. I've provided it so, rather than just taking my word that some statements inside your ARexx scripts can be physically sent across to other programs, you'll be able to see tangible evidence of this transfer! You can run the program from the Workbench by double-clicking on its icon. Do it now, and then open a Shell window and type in and run the following program as explained last month:

```
/* test8.rexx */
address 'ACRexx'
'Hello World'
```

You will see the message 'Hello World' appear in its window. The ACRexx utility simply displays the messages it receives rather than acting on them and carrying out particular jobs. This is because it was, with one notable exception, programmed by me to do this. The exception is the message QUIT, so if that command is added to the previous example:

```
/* message9.rexx */
address 'ACRexx'
'Hello World'
'QUIT'
```

then on running the program you will first see the 'Hello World' message appear in the ACRexx display window, then you see the QUIT message... and then ACRexx will shut down and disappear!

The important thing to understand here is that this happens, not because QUIT has some mystical ARexx significance but because I've programmed the ACRexx utility to continually look for this particular message and close its window and terminate when it arrives. This, of course, is a simple example of one ARexx-oriented program, namely the ARexx script listed above, controlling another program (in this case ACRexx). Most programs that have far more complicated ARexx interfaces recognise and act on all sorts of commands, but since this is the main topic for the next instalment I'm afraid you'll have to wait until then for the details!

program, 'Enter number of lbs', 'This is', and 'ounces', and two variables (called lbs and result).

You'll be using variables in almost all of the scripts you write but although the examples shown above are easy enough to understand, ARexx variables do not always react in quite the way newcomers expect. Consider these two programs:

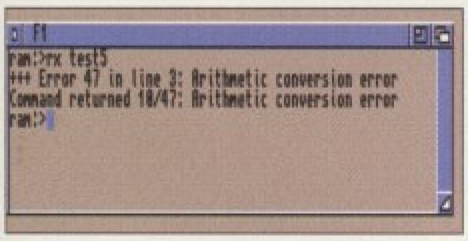
```
/* test2.rexx */
say 'test'

/* test3.rexx */
say test
```

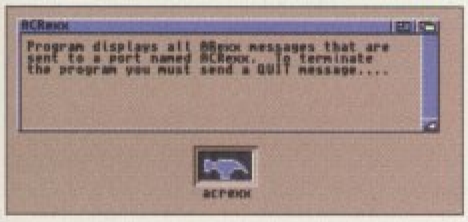
The first, as you should realise, prints the word... test. In the second case, however, the output printed is TEST. Why the difference? Well, because the quotes were not placed around 'test' in the second example, ARexx assumed that test was a variable rather than a text string. Now you might imagine that, since this variable was not initially set to any particular value, ARexx would print either an empty string (i.e. nothing), or perhaps a zero. In fact ARexx does neither – instead it automatically initialises the variable to a text string which is the name of the variable itself! At this point you need to be aware that internally, ARexx uses uppercase characters for its variables so the program's test variable, as far as ARexx is concerned, is the variable TEST.

The bottom line then is that in the second of the above examples we are printing the contents of a variable not a static text string. Because the variable was not explicitly set to a specific value, ARexx initialised it for us, setting it to the string TEST which, as far as ARexx is concerned, is the name of the variable. This means, incidentally, that with ARexx different variables must always have differently spelt names. Some computer languages would regard a program containing variables called Test, test, and TEST as having three separately defined variables. ARexx doesn't – it regards them all as the same variable TEST, although it doesn't mind what combination of upper or lower case letters you use when writing its name!

The fact that ARexx variables are typeless



Don't forget that two of the example scripts, test5.rexx and test6.rexx, have deliberate errors in them – so don't be surprised when you see ARexx error messages appearing



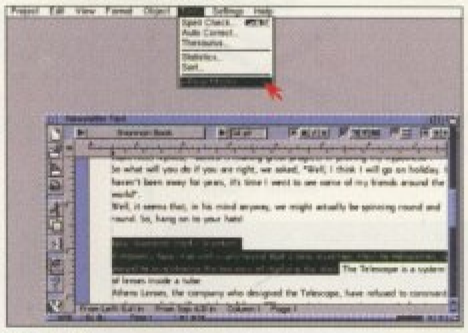
The ACRexx utility (also on the coverdisk) gives you a chance to see ARexx transmitting messages to another program

LOOP SEQUENCES

All the examples we've looked at so far have consisted of a straight sequence of instructions but ARexx, in common with other languages like Basic, also provides easy-to-use loop facilities which let you carry out a series of operations a given number of times. Here is a program which uses an ARexx DO-END loop to print the equivalent number of ounces in the 2-12 lbs range:

```
/* test7.rexx - lbs and ounces table */
do lbs = 2 to 12
       result=lbs*16
       say lbs 'pounds =' result 'ounces'
end
```

ARexx sets the lbs variable to 2 and then performs all the instructions between the DO/END markers. It then adds one to the lbs variable and repeats those operations again, continuing while lbs is not greater than 12. Loops, however, are just one part of the language. ARexx actually provides a whole range of arithmetic/logic operations and as well as the simple variables that we've used already, it supports things called compound variables which allow whole sets of objects to be manipulated. It also offers error detection and built-in trace facilities for debugging scripts. All this will be dealt with later in the series but to complete this instalment we are going to take our first look at the area where ARexx will be very different from any other computer language you may have seen.



We'll see next month that programs like Final Copy and Wordsworth provide good examples of the benefits of an ARexx interface

means that at different times you may use the same variable to hold both text strings and numbers. Look at this example:

```
/* test4.rexx */
x='Hello'  /* set x to the text string
'Hello' */
say x      /* display its value */
x=20       /* now set x to a number */
say x      /* and display it */
say x+300  /* do a simple sum */
```

In the above example, x is used first to hold a text string and then a number, and if you run the program this is the sort of result that will be seen:

```
1>rx test4
Hello
20
320
1>
```

Despite the fact that x was initially set up as a text string, once a number is placed in the variable, ARexx is quite happy to perform arithmetic operations on it. What happens, in fact, is that ARexx always looks at the contents of its variables just prior to using them – providing those contents are valid for the type of operation being performed, ARexx is perfectly happy.

Although ARexx is very flexible in this respect it cannot do the impossible. If, for instance, you attempt to carry out an arithmetic operation on a text string ARexx will rightly complain:

```
/* test5.rexx */
x='aeroplane'
say x+1
```

On running the above program, ARexx will report an error because it knows that trying to add the text string 'aeroplane' to a number doesn't make sense. Although you wouldn't do this deliberately these type of errors will occur when you forget to initially set variables to a numeric value before carrying out some arithmetic operation with them. Look at this program for example:

```
/* test6.rexx */
say x+1
```

Because x was not explicitly initialised, ARexx set it to the uppercase string 'X'. Since adding 1 to a text string is then not a valid operation, ARexx again reports an error. AC

SUMMARY

Here, for easy reference, are those important points concerning the behaviour of ARexx variables:

- ARexx variables are typeless and do not have to be declared as being strings, integers, floating point numbers etc. ARexx looks at each item just before using it and decides whether it is dealing with numbers or pieces of text.
- Variables which are not explicitly initialised by your program are automatically set to a text string which represents the name of the variable. This string will consist of UPPERCASE characters because...
- ARexx converts all variable names to uppercase before using them. Needless to say, this means that case has no significance in ARexx variables and labels. X and x represent the same variable as do lbs,Lbs, and LBS!

Weaving a design

Web design Part 2

And so it begins, the practical side of creating a **Web** site. Here are the first steps to take guided by **Ben Vost**

Last month I dealt with the initial planning and set up of the design, and this month we're still not going to be uploading anything, at least, I'm not going to be dealing with that side of the design yet. In the meantime, you'll be able to see how the Web page is progressing at the address shown in the boxout at the bottom of the page. Before we actually get down to the nitty gritty of the Web site construction, we ought to take a look at the tools I'll be using to create this masterpiece.

The single most important thing to have is a Web browser of some description and the best available on the Amiga at the moment is iBrowse. Now whether you buy iBrowse as a commercial package from HiSoft, or simply download the demo version from ftp.omnipresence.com, is up to you, and the Web pages we are creating will work equally well in either version of the package. If you are using another browser like AWeb or Voyager, be warned that we will be using HTML tags that neither of these packages understands at the time of writing, so you'll need to either get a copy of iBrowse after all, or perhaps a better browser like Netscape if you have access to a PC or Mac.

Possibilities

The next piece of software you'll need is a text editor of some description. I'll be using Turbotext 2, the best editor I've come across (also available from HiSoft), but even EdDwould do the job. It will help if your text editor and Web browser have an ARexx interface, opening up the possibilities of automatically updating the browser when you make changes in your text editor.

The last piece of essential software, if you want your pages to be more than just text, is a graphics package. For this exercise I will be using Personal Paint exclusively. The major reason for this is PPaint's superb handling of Web-oriented graphics file formats.

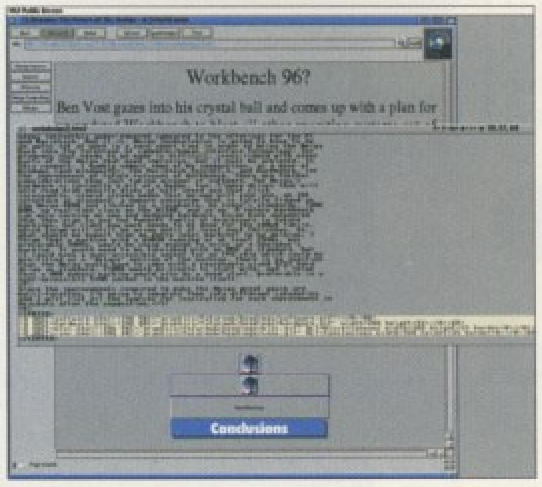
What am I talking about? GIF, that's what. PPaint is the only package I know of on the Amiga that has such a friendly attitude to a user's desire to create transparent and progressive GIF files (also known as GIF89A files). Personal Paint is also renowned for its image processing features which will mean that I shouldn't have to touch another package. There are a few ancillary products that will come in handy while you are creating your Web site. One is undoubtedly some sort of filemanager for organising your HTML and graphics files better, and another would be an image viewer that can tell you additional information about a picture such as the number of bitplanes and, most importantly, the size of the image. You should probably also

➤

MOT

No, nothing to do with cars just a poor, tongue-in-cheek reference to More Obscure Tags. By now you should be familiar with the old <IMG SRC="graphic.gif"> HTML tag, but there are a couple of add-ons we can put in there before the right angle bracket.

The first, for our purposes, is the ALT= keyword. This can either represent another, smaller version of your picture or, more usefully, some text describing the picture. I say 'more usefully' because the one good reason for using the ALT tag is if the person on your site isn't downloading your images for some reason. It would still be nice if they knew what the blank areas in their browser were supposed to represent, and putting some text after the ALT= tag means they now have it. Check out the Amiga Computing home page (http:www.idg.co.uk/amigacomp/) without images turned on (you might need to clear your cache too) and you'll see descriptions of what each of the buttons down the left-hand side do.



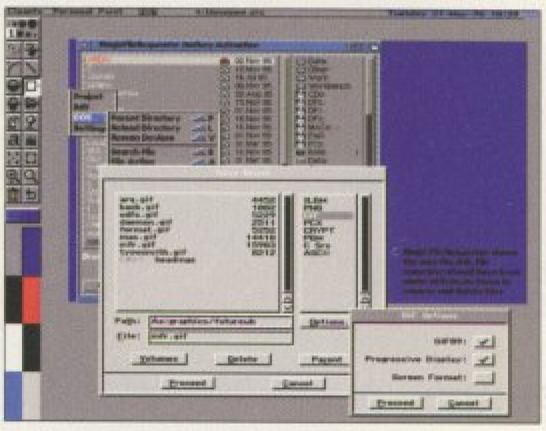
The Amiga Computing homepage, showing what extra tags can do to images

Next up, and another boon, are the WIDTH= and HEIGHT= tags that require you to enter the appropriate sizes for your image. You can put any size you like for these tags and the browser should automatically resize the images appropriately, but, and it's a big but on the Amiga, some browsers don't take kindly to it, including most revisions of iBrowse. Last up for this month is the BORDER=0 tag. This very handy number stops the disconcerting bright blue border around a button from appearing. This means your nice round buttons can actually be round, rather than being boxed in by the horrendous border.

GRAPHICS ON THE WEB SITE

The transparency and progressive display effects of the GIF file format can make a Web page a lot more attractive and are easy to achieve in Personal Paint. For our pictures with captions on the Web site, you can simply type the text for the caption onto the PPaint work screen, next to the image, and then cut out the whole thing as a brush. Whatever colour you have as the background colour gets made transparent, as you'd expect, with brushes, and it is this colour that becomes the transparency when you save the image out as a GIF.

Of course, with some of the images on our site this would prove a problem because of the fact that the default background colour in PPaint is the same as the Workbench background colour. But this isn't a real problem. All you need to do is select a colour that isn't being used (you might need to increase the colour depth of the image to do this), and paint this behind the area for the caption. This is easier to see than to explain, but you should end up with a caption which is attached to your picture, but floating over the background colour or image in your Web browser. If you want to see for yourself how



See the bright blue? This will become transparent in the browser and the Progressive Display tick means the image will become visible instantly, and understandably soon

this works, try downloading one of the images used on the Web site (the MFR one is particularly suited to this) and have a look at it with an image viewer like Viewtek. You should see that the colour behind the caption text is a bright blue not found elsewhere in the image.

Just so you know, the three buttons in the PPaint brush save options work as follows:

***GIF89** – if you have this ticked, whatever was the background colour (and hence transparent) of your brush will be saved as transparent*

***Progressive Display** – this will ensure that your image 'rezzes up' when it is being downloaded from the server. No more having to wait until the whole thing is on your hard drive before you can see it*

***Screen Format** – you should leave this one unticked for the most part, although it almost certainly won't cause any harm. It tells any viewing programs that want to listen what Amiga screenmode the image should be shown on.*

➤

get the HTML Guides available on the Aminet in order to help you understand the principles behind what we are doing, although you should be prepared for some fairly technical mumbo-jumbo.

Before we actually start on the HTML coding part of the tutorial, let's talk about directory structures and file naming conventions. If you are only planning a simple Web site it may be that you end up just putting all your files into one drawer and leaving it at that. Some people I know like to separate their graphics into another drawer, and for the purposes of this tutorial we will have a graphics drawer, and also sub-directories for various types of graphic.

ORGANISATION

When I first started doing HTML I had a 'suck-it-and-see' kind of approach, but now I try to think of what the best way will be to organise my Web site. You may be different, so don't take what I say as gospel, but an example of the chaos that can ensue was evident on the *Amiga Computing* Web site, which I also created. When I started the project everything seemed fairly obvious, but now the site is so much more complex I have had to completely reorganise the way the files are stored.

If you have a look at the site now you will notice that the sections that require monthly updates are actually sorted into directories with the issue's number. Everything to do with an issue will go into that drawer, whereas things that get carried across different issues, particularly graphics, get stored elsewhere. Organising the site this way has also meant that I can offer a 'back issue' service where visitors can view previous issues' news, letters, etc.

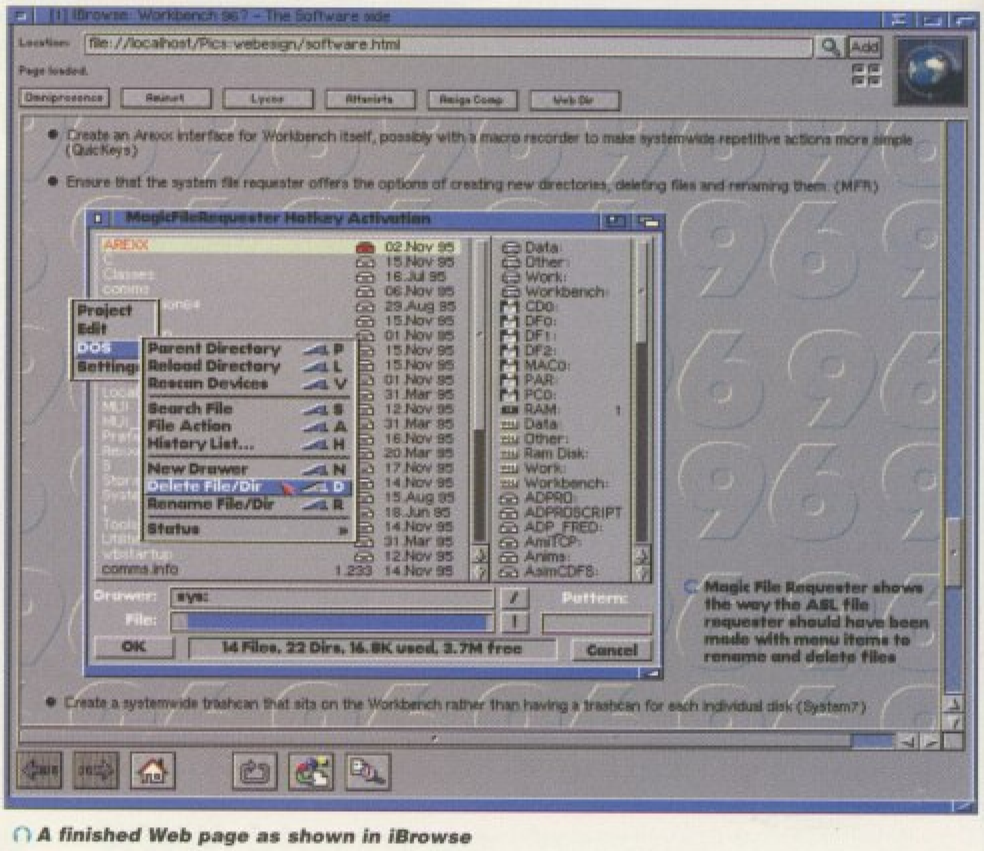
Next is file naming. Although you don't have to worry about sticking to an 8.3 filename like on a PC, there *are* some restrictions. Spaces in names are a no-no, as are certain characters (which, in any case, AmigaDOS doesn't like you using in filenames). Also, Unix, the operating system of choice for Web servers, distinguishes between upper and lower case letters,

The single most important thing to have is a Web browser of some description and the best available at the moment is iBrowse

so it is best to either make all your filenames one case or the other or don't use capitalisation at all. This goes for filenames and directories and is probably the hardest thing to remember when it comes to creating a Web site, especially when dealing with names that are normally capitalised, like 'Amiga', for instance.

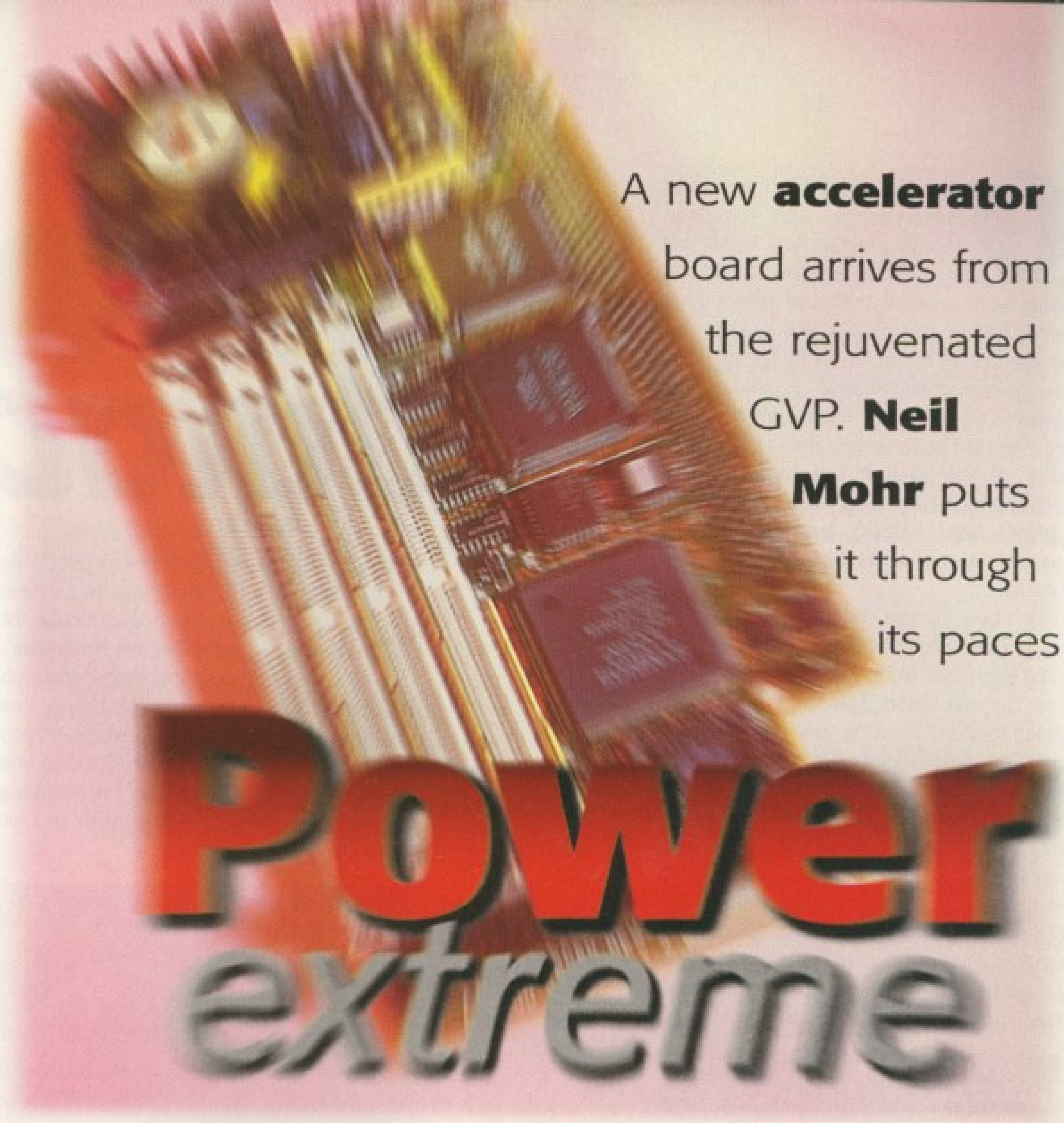
So we've covered all the pitfalls that might occur *before* you start coding your page, but what about things that can cause problems once you've gotten started? Probably the biggest is the lack of certainty about how your page will look. Oh sure, it might look great on your browser, on your machine, with your fonts and at your resolution, but the very flexibility of the WWW can also be its downfall. Try to stick to the Web's average sizes of about 600 x 400 for your page and you can't go far wrong. You can also try to use simple graphics for your headlines rather than relying on the <H?> tags. As long as you keep your images simple there's no reason why they won't download in nearly as little time as the text itself.

Ah well, out of room again. Next month we'll actually try to upload our fledging page to our service provider and see what happens when it actually goes online.



Magic File Requester shows the way the ASL file requester should have been made with menu items to rename and delete files

A finished Web page as shown in iBrowse



Power extreme

A new **accelerator** board arrives from the rejuvenated GVP. **Neil Mohr** puts it through its paces

When GVP went bust it took a lot of extremely good products with it, including the G-Force 040 40, a 40Mhz 040 replacement CPU board for the A4000. Luckily, GVP was quickly snapped up by M-tech and Power Computing, because it was in their interest as they were the main distributors for the products. As the 'old' 040 processor is pin identical to the 060, the G-Force board and software has been updated to accept this latest processor from Motorola.

The board itself is a direct replacement for the original 030 or 040 CPU board that is in the A4000. The physical dimensions of the two boards are identical, yet GVP has managed to cram not only four Simm sockets but also a high speed SCSI-2 interface all on the one board.

Installation is straightforward – once you have prised out your old CPU board and changed two jumpers on the motherboard, just slot in the G-Force board. A fan is attached over the 060 to maximise its life and is powered from one of the IDE power sockets via a pass-through connector. Next you install the GVP software that consists of its FastPrep software for initialising any hard drives you attach to the SCSI chain, and a replacement 68040 library to patch the new 060 maths functions.

Transferring

As the G-Force board comes with four Simm sockets, you will want to transfer any Simms you have on the A4000's motherboard to the accelerator board, as this gives a major speed increase when accessing your memory. The G-Force not only accepts up to four 4Mb or 16Mb single-sided Simms, but can also handle up to four 8Mb or 32Mb double-sided Simms, giving you a possible total of 128Mb of RAM on the board itself.

Hardware wise the G-Force is impeccable, but this cannot be said for the software. Due to the architecture of the 060 it has problems processing 64-bit calculations that can lead to a great slow down in system performance.

A new 060 library and a patched 040 library that are supplied with the G-Force do counteract these problems to a certain extent, but until specific patches or versions of programs are produced this will be a problem for *all* 060 accelerators. The problem is particularly acute with Doom-type games such as Breathless, for which there is now an 060 patched version available from Power.

If just having an 060 is not enough for you then GVP has also managed to squeeze a high speed SCSI-2 interface on the board. A 50-pin interface is located at the end of the board making access a little awkward because it is under the floppy bay, but there is room to feed a ribbon cable out. The interface itself is as fast as the 060. Testing the Jaz drive with SysInfo returned a very respectable 4Mb/s and the interface itself rated up to 10Mb/s.

It would be nice if Power could supply a backplain so you could fix both a couple of internal SCSI drives and also get a standard 50-way centronics-style interface out of the back of your A4000, making it much simpler to add external SCSI devices. At the moment you would have to get hold of a cable converter to let you connect an external SCSI device.

AMIGA BLUE CHIP AWARD

This is a class piece of equipment, well built, easy to install, competitively priced and faultless in operation. Currently, this version of the board is only for the standard desktop A4000, but Power Computing hopes to have a version that works with the A3000/T and A4000T in the very near future.

Must have some benchmarks

Everyone seems to argue about the relevance of benchmarks, but given a varied range of tests you can get a good idea of how a processor performs. SysSpeed, which uses actual applications to produce results and therefore gives 'real world' results, returns values anywhere from 2 to 4.8 times the speed of a normal A4000/040. On average this makes the 060 around three times as fast as the old 040, and that is without optimised code.

AIBB Benchmarks – relative to A4000/40

Test	G-Force	1200/040	A3000	A1200
EmuTest	2.48	1.1	0.3	0.11
Dhrystone	2.85	0.99	0.29	0.1
Matrix	3.29	1.23	0.54	0.2
IMath	3.6	1	0.37	0.16
BeachBall	2.64	0.31	0.31	0.02
MFlops	2.84	1	N/A	0.17
FMatrix	3.74	1.47	0.4	0.13

Bottom line

Requirements

RED *essential* | **BLACK** *recommended*



Product details

Product	G-Force 060
Supplier	Power Computing
Price	£799
Tel	01234 273000

Scores

Ease of use	90%
Implementation	95%
Value For Money	90%
Overall	93%

Operation database

Part 5

Paul Overaa explains how EasyBaseAC database files are stored in memory

Those of you who have been experimenting with the EasyBaseAC program will know that the main control window allows database records to be selected using a scrollable ListView gadget. ListView gadgets are, on the face of it, quite easy to set up – you just specify LISTVIEW_KIND in the gadtool library's CreateGadget() routine whilst providing a few tag items to describe the characteristics of the gadget. Unfortunately, one required tag, GTLV_Labels (used to specify the gadget's label entries), tends to throw a spanner in the works because it involves Exec lists.

As many of you will doubtless already know, Exec uses lists to store almost everything that it has to deal with and because of this, the exec library includes a small set of generalised list handling functions. Routines exist for adding, deleting, finding items and for inserting list entries according to various orders and priorities. When EasyBaseAC creates or reads in a database file it uses these routines to build an Exec-style list where each entry in the list represents a database record. The important part of the main EasyBaseAC window, then, is basically just a ListView gadget with an Exec-style list of database records attached to it!

Building blocks

To understand how EasyBaseAC databases are created and manipulated whilst in memory, you need to understand about Exec lists. The fundamental building block of these is a structure known as an Exec Node. As defined, these Nodes are divided into two parts: Firstly, there's the linkage data which consists of two pointers used to hold information about the next item in the list and the previous item. Secondly, there is some internal node information which consists of a type field, a 'priority' field, and a pointer to a node name. As a C structure an Exec Node looks like this:

```
struct Node {
        struct Node *ln_Succ;   /* pointer
to previous item */
        struct Node *ln_Pred;   /* pointer
to next item */
        UBYTE        ln_Type;   /* node ID
type */
        BYTE         ln_Pri;    /* node
priority */
        char        *ln_Name;   /* pointer
to node name */
        };
```

Exec's list functions work just on the fields present in the Node structure itself. This means that, providing a Node structure is made the first part of whatever data is being worked on, the Exec routines can effectively manipulate structures of any size. In practice, the real data associated with a particular list node is defined by extending the Node structure. This is exactly what has been done with EasyBaseAC and in the general.h header that was provided with the second instalment, you will find that I created my own ListNode unit by combining an ln_Field array (representing the fields of a database record) with an Exec Node like this:

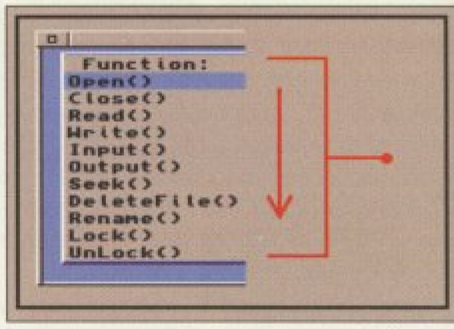
```
struct ListNode {
struct Node          ln_Node;
UBYTE                ln_Field[MAX_FIELD
                     _COUNT][MAX_FIELD_
                     SIZE+1];
};
```

Before node data can be added to an Exec list a 'list header' has to be prepared which, as a C structure, has this form:

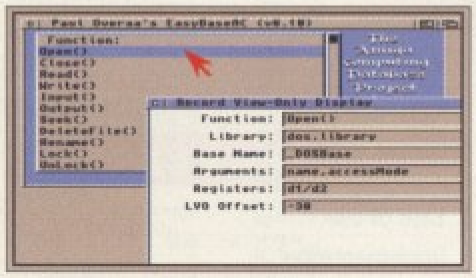
```
struct List {
        struct     Node      *lh_Head;
/* first node in list */
        struct     Node      *lh_Tail;
        struct     Node      *lh_TailPred;
/* last node in list */
        UBYTE                 lh_Type;
        UBYTE                 lh_Pad;
};
```

lh_Head points to the first node in the list, lh_Tail is always NULL, and lh_TailPred (tail predecessor) points to the last real node of the list. Within the List structure the lh_Type field is used to store information about the type of nodes stored in the list, and several types are defined in the exec/types.h include file. The amiga.lib library contains a NewList() function which can initialise a list header and listing 1 shows this routine in use.

One important point to bear in mind when using Exec lists is that when you see a pointer to an Exec list, you are looking not at the first node in the list, but at the list header!



Database files are written to disk in exactly the same order as they appear in the main window's ListView gadget



When a record is selected Intuition sends the program an IDCMP_GADGETUP message

Database record housekeeping

Exec provides general node addition and deletion routines plus special case routines – AddHead(), RemHead(), AddTail(),RemTail() – for adding and removing node elements from the fronts and ends of lists. An Enqueue() function is also available for adding nodes into a list in priority field order along with a node searching routine, FindName(), which allows a list to be searched for a node of a given name. The Exec list-manipulation routines themselves are not hard to understand but it's probably worth mentioning a couple of EasyBaseAC code areas that you might find it useful to examine.

If you look back at the window2.c code (the EasyBaseAC editing window) provided with the third part of the series you'll see that when a user clicks on the window's Store gadget a routine called StoreData() is executed. This copies the record information held in the string gadgets into a temporary g_new_node structure and then calls an AddToList() routine whose job is to allocate and set up a new ListNode structure in memory and link it into an Exec list. You'll find the AddToList() routine present in this month's window1.c source and one important assignment in this code is the setting of the node's ln_Name field so that it points to the name of the first field of the database record:

```
memory_p->ln_Node.ln_Name=&memory_p->ln_Field[0][0];
```

It's because this has been done that the ListView gadget attached to the window displays the first (key) field of each record. As soon as the various new node fields have been set up or copied into the memory allocated for the node, the (possibly empty) list has to be searched to see where the new record data should be inserted. A system macro IsListEmpty() provides a nice easy way to tell whether a list is empty and if this is so, we know straight away that the new node being added is the first node in the list. It gets added like this:

```
AddHead(g_database_list_p,(struct Node *)memory_p);
```

LOADING AND SAVING

You'll also find LoadFile() and SaveFile() routines in this month's coverdisk module and both use ordinary C-type file handling. To save off a database we open a file, write out a database header and then use a loop to write record headers and record data for each node in the database list.

This means, of course, that records get written to disk in the key field sorted order that they appear in the ListView gadget. Consequently, this makes file loading relatively straightforward since no sorting has to be done.

To load a database we open the file and then, providing a suitable EasyBaseAC file identifier is found, simply allocate ListNodes and read in record information until we come to the end of the file.

```
struct List *CreateList(void)
{
struct List *list_p;
if (list_p=AllocMem(sizeof(struct List),MEMF_CLEAR))
          {
          NewList(list_p);
          }
return (list_p);
}
```

Listing 1: EasyBaseAC's list header allocation and initialisation routine

```
struct List *ClearList(struct List *list_p)
{
struct Node *node_p;

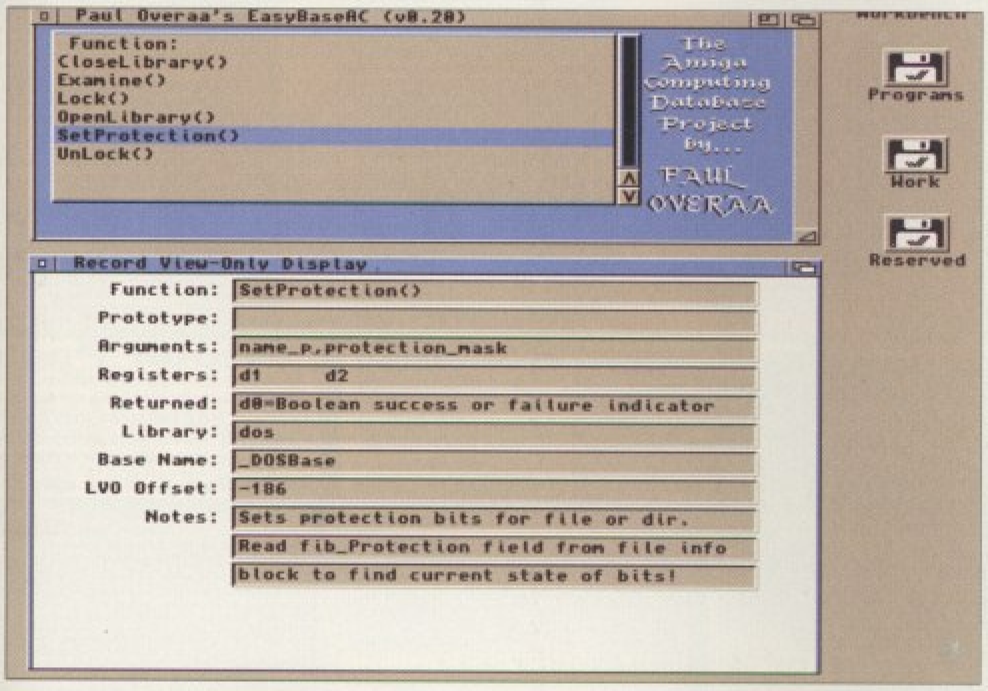
/* Deallocate all existing list nodes and list header */
if(list_p)
          {
          while (node_p=RemHead(list_p))
                    FreeMem(node_p,sizeof(struct ListNode));
          FreeMem(list_p,sizeof(struct List));
          }

return(NULL);
}
```

Listing 2: This routine removes a list and its associated list header from memory

```
case IDCMP_GADGETUP:
/* code = ordinal list number (first NODE is 0) */
if (code)
          {
          node_p=g_database_list_p->lh_Head;
          for (i=0;i<code;i++)
                    {
                    node_p=node_p->ln_Succ; /* next node */
                    }
          g_current_node_p=(struct ListNode *)node_p;
          g_new_node=*g_current_node_p; /* copy to editor window */
          DisplayListNode(g_current_node_p);
          }
else DisplayBeep(NULL); /* 1st record selected */
break;
```

Listing 3: This code fragment shows how the list number provided by Intuition is used to identify an EasyBaseAC record



Starting this month, EasyBaseAC files are being used to provide details of functions used in Amiga Computing's regular assembler programming column

This empty list situation only happens as a database is being set up and the first record stored is actually a dummy one that contains the field names to be used when entering real data. Just before performing the AddHead() routine you'll notice that I force a blank character into a buffer[] variable and add this to the database's key field name originally provided by the user. This is done to ensure that the field labels record will be permanently kept at the start of the list (providing no other record is added whose key field starts with a blank). Okay, I admit it – this is a temporary bodge until I think of something better!

Once a list has at least one record in it, record addition gets a little more complicated. In order to keep records sorted (so that they appear in alphabetical order in the ListView gadget), a loop has to be used to step through the list nodes comparing existing node names with the name of the new node being added. The comparison is done using a case insensitive stricmp() function and, depending on the result, either a list Insert() or a list AddTail() operation is performed.

As you examine the list searching code, notice how the first node of the list is found:

```
node_p=g_database_list_p->lh_Head;
```

and how, where necessary, we move from one node to the next in the list by using a node's ln_Succ field like this:

```
node_p=node_p->ln_Succ;
```

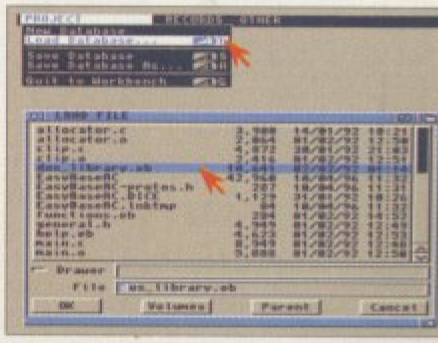
You'll be able to get the full code details from the coverdisk and will find other list-based routines such as the ClearList() routine shown in listing 2. This uses a loop to successively remove and deallocate all the nodes of a list and then finally deallocates the list header allocated when the list was originally set up.

OVERALL CODE ORDER

The window1.c code module provided this month is quite large but much of the code will have a familiar ring to it. Window, gadget, and menu creation, for example, all follow the arrangements discussed previously. The event handler used to process menu and gadget events, though larger than the one used in the window2.c module dealt with last month, also adopts the same sort of nested code 'event division' approach. This time, however, it's easier to see the benefits. Incoming events are identified and menu events are passed on to their respective menu handling routines where in each case switch statements are used (in conjunction with menu numbers) to pick a particular course of action.

Perhaps the most interesting bit of magic is how clicking on a ListView record entry causes that record's information to appear in the other two EasyBaseAC windows. The code fragment in listing 3 shows how it's done. When a user selects a ListView gadget item, Intuition sends an IDCMP_GADGETUP message and the code field of this message contains the number of the node associated with the selected item. I simply collect this number and read through the record list until I get to that node. Having done that, the information is displayed by making a call to a routine called DisplayListNode() which causes the editing (window2.c) and display-only (window3.c) windows to update their displays.

That's about it for this month. Study the code, have fun, and I'll provide the last part of the story next month!



EasyBaseAC's Project menu file loading and saving options use an asl-based GetFileName() routine to collect a file name from the user

VARIOUS PACK

Any pack comes on 5 disks only £4.95 per pack

COLOUR FONTS Pack	(1 or Pack 2)
MONO FONTS Pack	(1 or Pack 2)
High quality fonts for use with Dpaint or Personal Paints	
VARIOUS CLIPART Pack	(1, 2 3 or 5)
COLOUR WORLD MAP	(Pack 1, 2 or 3)
High quality world map	
COMPUTA-GRAPHIC FONT	(Pack 1, 2, 3, 4 or 5)
High quality font for WORDSWORTH or any DTP	
IMAGINE VARIOUS OBJECTS	(Pack 1, 2 or 3)
REAL 3D VARIOUS OBJECTS	(Pack 1, 2 or 3)
LIGHTWAVE VARIOUS OBJECTS	(Pack 1, 2 or 3)
TRUE FONT FOR ABOVE	(Pack 1, 2 or 3)
(Please state for which pack above)	

We also stock many more packs. Please Phone

COMMODORE C64 V3



The very latest version. Now you can play real Commodore C64 games on your Amiga. All packs below are complete & ready to play directly on your Amiga. Printed instructions provided.

C64 & 45 original games........£4.99
C64 & 100 original games........£8.99
C64 & 200 original games......£16.99

P.S. C64 V3 & 100 GAMES PACK GOT 88% REVIEW IN AMIGA SHOPPER ISSUE 54

ZX SPECTRUM 48K



Now you can play 100's of Spectrum 48K Games on your Amiga. Any Pack below is complete & ready to run on your Amiga. Full printed instructions provided.

SPECTRUM + 50 GAMES PK1 ONLY £4.99
SPECTRUM +100 GAMES PK2 ONLY £7.99
SPECTRUM +200 GAMES PK3 ONLY £11.99

SPECIAL OFFER

Take all 3 packs above & 50 New Spectrum Games (total 400)..........For Only £19.99

More Spectrum games available ⬅ screen shot from AMIGA

Special Offer

C64 & 45 games pack
Spectrum V2 & 50 games
Vic 20 & 30 games

All 3 packs for only £9.99

SEE LEFT FOR DESCRIPTION

1000 SPECTRUM GAMES pack

See left for details. This pack comes on very large number of disks £39.99

NOW ONLY £29.99

C64 v3 PK4

Special offer C64 v3 and 45, 100, 200 games pack with extra 55 C64 games making 400 C64 games & utilities disks. Comes on large number of disks + games list and loading leaflet. Only £24.99.
See C64 or Spectrum advert box for more details

AGA A1200 & A4000 ONLY

THIS LISTING ARE FOR USE WITH AGA AMIGA

AGA001 EXTENSION DEMO Stunning demo, fast landscape anim and a rotating city, regard the best AGA demo
AGA002 FRACTAL GENERATOR fractal in 256 colour.
AGA003 WORKBENCH HACK many hack/toy/blanker etc
AGA006 NEW SUPER KILLER know kmow & kill over 270 type of virus must for all A1200 owner
AGA007 MINDWARP very first demo for the A1200
AGA008 KLONDIKE DELUXE AGA (3D) the best A1200 card games with glamours lady as cards face 18 + only
AGA011 SLEEPLESS NIGHT 3
AGA012 PLANET GROOVE Truly A1200 Demos
AGA013 MOTOR INVADER 2 (2D) Brillant INVADER game
AGA015 POINT OF SCALE Great A1200 only demos
AGA016 CHROMAS- Fairly good demo.
AGA017 WORLD OF MANGA (4DISK) magnificent Japanese comic slide show include Japanes Chick etc recommend
AGA021 MAGIC WORKBENCH Improve the look of your WB & add some function to your WB really BRILLANT
AGA022 WB 3 UTILITIES load of Wb 3 only utilities
AGA023 U-CHESS the best chess program games so far but require 4 megbytes. Brillant graphic
AGA024 WORKBENCH 3 SCREEN Great back drop
AGA41 ADULT SLIDE Vol 1-9 (2 disk each) *see below
AGA62 BODY SHOP VOL 1-7 (2 disk each) *see below
AGA80 FITCHICK vol 1-3(2disk each) *see below
to order any disk above just state disk code & volume no? (remember 2 disk per volume)

DEGRADER

AGA090 A1200 FIX DISK COLLETCION 1
AGA091 A1200 FIX DISK 2 COLLETCION 2
AGA094 RELOCKIT V1.4a latest. run A500 SOFTWARE
AGA306 A1200 FIX DISK VOL 3 (new july 95)
All disk above are design to make any old A500-A600 Amiga programs/games etc to run on your A1200/A4000
MUST FOR ALL AGA AMIGA OWNER. RECOMMEND

AGA097 A1200 UTIL - AGA TESTER, SYSINFO etc
AGA098 ACTION REPLAY V4 Complete ACTION REPLAY.
AGA099 MADFIGHTER 2 brillant street fighter clone
AGA100 AGA BLITZ SCREEN BLANKER
AGA101 FAST GIFF 2 display GIFF pic in Workbench.
AGA102 AGA DIAGNOSTIC - NEW system tester
AGA103 BLACK BOARD AGA decent image processor
AGA105 QUICK GRAB AGA -grab AGA screen PICTURE
AGA110 WORLD BEYONDS 1 (3) stunning 256 COLOUR fantasy art. leave atari userbreathless
AGA114 SMELL LIKE CHANEL NO5 brillant demo ray trace picture ever release on the A1200
AGA121 MAGIC FACTORY 1 STAR TREK (5 disk)
AGA133 AGA UTIL v1&2 (2) AGA util compilation
AGA135 AGA UTIL V3 &4 (2) more of above
AGA137 MULTIBOOT- 4 various version A500 EMU
AGA138 OFFICIAL WORKBENCH 3 HARDDRIVE INSTALLER
AGA139 WB3 HARDDISK PREF & INSTALLER installing
AGA140 CROSS DOS PLUS v5.1 read/write PC files
AGA142 SUPER LEAGUE 3 -latest manager games
AGA144 SPEAK & SPELL - educational software for kid
AGA145 BIG TOPS (18 + only)HMMmm
AGA146 KELOG LAND -brillant platform games
AGA150 ACTION REPLAY V5 - NEW UP DATE TO V4
AGA160 GIGER TRIZ very playable 256 colour tetriz
AGA162 FATAL-BLOW new STREET-FIGHTER 2 clone
AGA164 CINDY CRAWFORD Vol1 (2 disk) latest release
AGA166 INFESTATION (3 disk) The ultimated AGA demo
AGA170 CINDY CRAWFORD Vol II (2disk) amazing
AGA172 VIDEO TRACKER AGA-ultimate demo maker
AGA174 MAGIC WB EXTRA vol 1 & 2 (2disk)
AGA180 GIF BEAUTIES Vol (11-18) 8 more girls disk
AGA189 FRIDAY AT 8 another brillant AGA demos
AGA190 ASSASIN MULTIVISION AGA pic viewing util
AGA192 ALIEN FRENZE 2 player blasting +power up
AGA194 BIG TIME SENSUAL (2disk) SPACE BALL 2
AGA200 MASQUERADE 2disk brillant puzzle games.
AGA202 RAM JAM 94 it cat be done (2disk)
AGA203 EXPLIXIT 2 DEMO new effetc welldone.
AGA204 COMPLEX ORIGIN 2disk require 2 diskdrive
AGA206 TREASURE OF TUTANKHAMUN- eductaion tool
AGA230 LOVE 2 disk-simply brillant DEMOS
AGA231 AGA UTIL 7 & 8 (2 disk) .More USEFUL util
AGA234 KNOTTY-Stunning AGA sliding pictre puzzles
AGA240 LOTTERY WINNER hope-fully will improve your chance of winning a jack pot..GOOD-LUCK
AGA241-258 AGA GAME-GALORE AGA 01-18 lot of games
AGA251 PACKMAN AGA -the best pacman yet
AGA252 ROCKET PD - Super thrust clone brillant graphic for 1 or 2 player
AGA253 REAL DEMO stunning special effetc
AGA254 DIRT AGA Brillant 256 colour effetc.
AGA255 DELIGHT EXPLORE excellent demo
AGA256 KEFEREN AGA Demo lot of effetc
AGA257 MINOMIST RAVE great rave music.
AGA258 OXYGENE Fantastic demo
AGA259 INTEL-OUT another very good demo
AGA260 SOMEJUSTIC94 Demo of the month brillant whirl effetc. RECOMMEND
AGA262 TO THE DEATH very good STREET-FIGHTER clone with very good graphic.
AGA263 GEORGE GALAXO (2disk) brillant multilevel shoot/platform game. RECOMMEDN
AGA265 MISSILE OVER ZENON (2disk) Brillant 3D missile commander with fantastic graphic
AGA266 TEAM-HOI DINO PLATFORM excellent dino platform Note:this disk was a commercial games
AGA274 MUSIC 2 SURVIVE 2disk 8 excellent music master piece. well worth getting
AGA271 RAVE MAXIMUM OVERDRIVE II (2disk)
AGA278 CHANNEL Z ISSUE 1 (AGA) (2disk) AGA base disk magazines. RECOMMEND AGA disk magazine topic.demo/music
AGA285 WORKBENCH BACKDROP VOL 3
AGA295 DE-LUXE MONOPOLY- Board game.V addicted
AGA296 DONKEY KONG Arcade classic conversion
AGA297 BOMB PAC Extreamly good to play
AGA298 ROCKET 2 set deep underground brillant graphic. even better with 2 player
AGA299 SCRABBLE-Now fully run on all Amiga
AGA300 MAGIC WB V2. Demo of version 2
AGA302 TUTANKHAM II(2) Education-Egyptian MUMMY
AGA303 PAMLA.ANDERSON.(2) 18+ only BayWatch Babe
AGA304 BODYSHOP V8 (3) more bikini beauties
AGA305 TIMEZONE (2) V.Good graphic adventures.
AGA307 DENTAWOLF dooms demo
AGA308 NAXIS -Really show what AGA graphic co do
AGA310 FEARS (2d)- dooms clone demo
AGA312 JINX (2d) Fantastic arcade puzzle
AGA313 RAM JAM THE TASTE DEMO.very wicket demo.
AGA315 ILEX MYSTIC. New AGA demos
AGA320 KLONDIKE 3 (4disk) Hd require & 2meg +we aslo have a list of 25 cards for above.
AGA321 HOT-BABE 1 (2) MUST BE OVER
AGA322 HOT-BABE 2 (2) 18
AGA323 HOT-BABE 3 (2) BEFORE
AGA324 HOT-BABE 4 (2) ORDER ANY
AGA325 HOT-BABE 5 (2) OF THE HOT-BABE PACK
Hundred of quality Magic wb icon & back drop
AGA388 DESK-TOP MAGIC- 32 animated screen blanker
AGA389 WAR OF THE WORLDS -full 3D games
AGA390 FEAR 2. Brillant 3D graphic games like
AGA391 PSSST Amiga version of Spectrum games
AGA392 CHILD MURDER(4)Horror graphic adventure
AGA390 FEAR II -Brillant 3D game play just like DOOM on the PC Garrenteed you impress.
AGA393 PC EMULATOR V3- Latest PC emulator
AGA400 HYPER RACE (2) Super racing games
AGA410 CINDY CLAWFORD (3) new
AGA411 ELLE MACPHERSON (3)
AGA412 CLAUDIA SCHIFFER (3)
AGA413 BIG GIRLS II (3)
AGA414 GIRLS GIRLS (2)
AGA415 NIKY TAYLOR (2)
AGA417 KYLIE MINOUGE (3)
AGA418 FEMALE BODY BUILDER (3)
AGA419 EXCELLENT CARD GAMES 3 latest
AGA420 POKER & BLACK JACK DELUXE (3)4MEG
AGA421 COLOUR WB make your WB more colourful
AGA422 RIDGE RACER Demo on the Amiga,
AGA423 DRUG STORE DEMOS (2disk)
AGA424 DREAM WALKER (2) Demos
AGA425 MYSTIC DEMOS(2) 95 excellent demos
AGA426 ORIGIN 2 (2 DISK), Amazing

← SEE PAGE 1 FOR MORE SOFTWARE FOR YOUR AMIGA

SOFTWARE 2000 DOUBLE CD CONTAINS

OVER 1965 DISKS



This is the Big one! Nearly 2000 original disks from the SOFTWARE 2000 library included on a Double CD set. For title list just take a look at this Doubles advert for examle of titles & packs which can be found on this CD. No lucky dip or unknown software. Full description on every disks/titles. Very easy to use menu system on both CDs. This unique menu system lets you explore the contents of both CDs without disc swapping...Excellent. See below.

EXAMPLE OF DISKS CAN BE FOUND ON THE DOUBLE CD SET

294 – VARIOUS UTILITIES DISKS
252 – ANIMATION DISK
181 – AGA DISKS
92 – TOP SAMPLE AND FX DISKS
118 – EDUCATION DISK
133 – DEMOS
225 – MUSIC DISKS
18+ – DEMOS (Adults only)
402 + VARIOUS GAMES DISKS – with an estimate of around 1000 + Amiga games
50 LATEST DISKS OF MAGIC WB `7 BACKDROP. Version for all Amigas also includes 100s of IMAGINE OBJ, 600s AMIGA FONTS, 100s QUALITY B&W & COLOUR CLIP ART, & MUCH TOO MANY TO LIST...

ALSO INCLUDED ON CDs ARE

OVER 1000 NEW Spectrum Games (Play direct from CD) & both never been released on any CD Rom **AROUND 700 -1000 NEW C64 Games files (EMULATOR INCLUDED)**

UPDATE & RELEASE 1 OCTOBER 95 AVAILABLE NOW

- ✓ Over 600Mb per CD
- ✓ Menu compatible with all Amigas
- ✓ No duplicate of data
- ✓ Very easy to use Menu

2CD SET VOLUME 1

RRP ~~£34.99~~ NEW PRICE **ONLY £29.99** + 70p for P&P

Available Now

Below new games pack released due to popular demand. With any of these games packs, you know exactly what sort of games you're buying.

Like our previous packs, each pack comes on 5 disks and using the latest disk packer we can put upto 5 games on to one disk. So you get upto 25 top games for only £4.99. All games & instructions will run automatically when you click on the icon. All games pack contain different games. Compatible with ALL Amigas.

Board Games Pack 3 (5 disks) £4.99
Arcade Games Pack 3 (5 disks) £4.99
Puzzle Games Pack 3 (5 disks) £4.99
Card Games Pack 3 (5 disks) £4.99

Non CD rom owner

This pack is ideal for any Amiga owner who doesn't own a CD rom drive and wants a large amount of the very latest software at minimal cost.

These packs will be 100% update with all new or different software on the 1st off every month. All software are packed using LHA which has a ratio of approx 3-1 (up to 30 disks worth of software from the 10 disk pack). Highly recommended as you will get 3 times more software per disk.

Various latest games (10 disks)......only £9.90
Various latest utilities (10 disks)......only £9.90

NEW TITLES

G938 ULTIMATE TOUR TENNIS – (2 disks) Excellent tennis game
G939 DARK ANGEL – (NOT WB1.3) Superb arcade adventure
G940 RAISE THE TITANIC – Good 3D Adventure game
G941 PHANTOM – Excellent shooting games (Defender 96)
G942 MACDONA-LAND – Brilliant game similar to Zool (not A1200)
G943 JOUST III – Brilliant C64 game with updated Amiga graphics
G944 DELUXE GALAGA V2.6 – The very latest Galaga. Highly recommended
G955 LAZER RACE – Good Tron type, extremely addictive to play
G956 TRAIN-DRIVER SIMULATION – The most realistic train sim.
G957 MASTER BLASTER – Kill various monsters with bombs
G958 KNOCK-OUT Mini derby destruction, very addictive
G959 DUNGEON HERO – 3D Graphic adventure similar to Doom
G960 MORTAL KUMQUAT 3 – Weird but fun beat-em-up
G961 CODE NAME NANO – Superb Thrust Clone (Nano Fly 2)
G963 POKER MANIA – If you like poker then this is for you
G965 LEATHAL FORMULA – Adventure similar to Monkey Island
E253 BEGINNER TYPING TUTOR
E254 WORD PUZZLE PRO - Create CrossWord puzzle to solve puzzle
E256 KID DISK 7 – Another very fine education program
E257 A-Z COUNTRIES OF THE WORLD
E258 UK COUNTIES Similar to above but this is based entirely on ENGLAND, WALES, SCOTLAND AND NORTHERN IRELAND
E259 BASIC ELECTRONICS V1.5 (2 Disk) - For electronic fans
E261 MASSIVE GUIDE TO THE INTERNET V2.3
AGA429 POWERDROID - 96 New Asteroids with brilliant graphics
AGA430 ULTIMATUM - The ultimate 3D Tank Battle
U1010 WB2 INSTALLER - Install A500/A600 workbench to HD
U1011 TURBO-CAT PRO V1.2 (not WB1.3) - Create catalogues
U1012 TEXT-ENGINE V5 (not WB1.3) - The very latest wordprocessor with spell checker. This is the full version, highly recommended
U1013 DIARY 2000 - Use this just like a real diary
U1014 TOTAL ECLIPS - Disk magazine 1
U1015 NEW CHEAT DISK V2.1 (2 disks) - Includes some games. Fix
U1016 ULTRA ACCOUNT - Another very good accounts program
U1017 PRO LOTTERY 96 - The very latest & best lottery program
U1018 PRO GREYHOUND - Like Pro Gamble but for dogs
U1019 AUTO STEREO GRAM V4 - Latest Magic eye generator
U1021 ELECTRONIC ADDRESS BOOK
U1022 PRO FOOTBALL 1.1 (2) Football predictor like Pro Gamble
U1023 REMDATE - Reminder for important dates
U1024 SHAPE SHIFTER V3.3 - The very latest Mac emulator
U1025 MESSY SID 3 - The latest PC<>Amiga disk converter
U1026 HD GAME INSTALLER 4 - Install loads more games to HD
U1027 SOFT MEMORY - Double your computer memory. This version does not require HD or MMU. Give this a try, recommended
U1028 MAGIC USER INTERFACE V3.1 - Update to version 2.3
U1029 ORIC 48K EMULATOR (not 1.3) At last it works
U1030 MSX II Emulator V2.1 - (WB3.0) MSX computer on
U1031 900 AMIGA GAMES HINTS & CHEATS V4 (2 Disks)
U1032 VIRUS CHECKER V8.2 (not WB1.3) - Latest

LOTTERY WINNER

NATIONAL LOTTERY

EXCELLENT COLLECTION OF VARIOUS LOTTERY WINNER PREDICTION PROGRAMS

HIGHLY RECOMMENDED pack only £4.99

UFO THE CLOSE ENCLUNTER

100s & 100s of real life document of UFO sightings kidnapping & Animal mutilation & many more. Very interesting read. 6 Disk set only £5.99

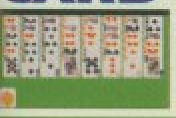
UFO – ALIENS MULTIMEDIA



100s of documented cases on UFO sightings, abduction, cattle mutilation & many more. Many with photos to back up the claim, some are so secret only released recently by law.

9 disk pack only £8.99

CARD GAMES PACK II



FOR ALL CARD GAME FANS
If you like Poker, Black Jack, Spade, Pontoon, Solitaire, Bridge, Klondike etc, then this pack is a must

Only £4.99

This pack contains 5 disks.

BUSINESS SOFTWARE

U007 TEXT PLUS 2.2e easy to used word processor
[illegible] BANKING Home account program
[illegible] LABEL DESIGNER design your own labels
[illegible] CALY 1.3 Excellent Database prog. RECOMMENDED
U144 DESKTOP PUBLISHING The best PD DTP available
[illegible] BUSINESS CARD MAKER (not A1200) brilliant
[illegible] 600 BUSINESS LETTER very handy. Get it now
[illegible] BUSINESS CARD MAKER - can Print in color
[illegible] DATA BASE WORKSHOP (2) brilliant PACK
[illegible] SPREAD SHEET Very easy to used spreadsheet
[illegible] QUICK BASE very powerful Database. Easy to use
[illegible] RIM DATABASE powerful database [illegible]
[illegible] AMIBASE - Professional II The best database yet
[illegible] TEXTRA Can edit served document at once
[illegible] FLEXI BASE Small easy to operate database
[illegible] PENNY WISE Very powerful database
[illegible] VISICALC Great database lots of fuctions
[illegible] TEXT-ENGINE V3.4 - full feature wordprocessor
[illegible] LITTLE OFFICE - database/wordprocessor/spreadsheet
[illegible] HOME BUSSINESS JOURNAL - Easy to use database
[illegible] BON APPETIT DATABASE many receipt.
[illegible] HOME ACCOUNT-Account program
[illegible] AMICASH regarded as the best account prog. Excellent
[illegible] JOURNAL full feature account program
[illegible] LORAN NOTE BOOK database & world map
[illegible] DATA BASE compilation - best seller to date
[illegible] MORTAGE CALC calculate mortage repayment rate etc
[illegible] MONEY PROGRAM very good account program
[illegible] ACCOUNT MASTER V2.4 New account program
[illegible] HOUSE INVENTORY - Ideal for home insurance
[illegible] ADDRESS PRINT V2.1 Store & print addresses
[illegible] TEXT-PLUS V 4.0 pro requires HD & 2meg
[illegible] TEXT ENGINES V4.1 latest 35,000 word spellchecker
[illegible] INVENTORY 2 details of home contents, for insurance
[illegible] EDWORD PROFESSIONAL truly the best wordprocessor
[illegible] EASYCALC + massive spreadsheet max 50000 cells
[illegible] PAY ADVICE ANALAZER - money prog.
[illegible] ADDRESS PRINTING print addresses on labels
[illegible] PAY ADVICE V3 account program
[illegible] LABLE MAKER-Print labels etc. New
[illegible] THE MONEY PROGRAM - Accounts
[illegible] LOANS ACCOUNT
[illegible] UNIFORM One of the best invoice makers
[illegible] ACCOUNT MASTER v2.2 (latest) programs up to 1000 entries per account

LITTLE OFFICE 2

New Release includes
550 Business Letters
Word Processor
Calendar
Name & Address Database

All this for only £1.99

COMPATIBLE WITH ALL AMIGAS

HARD DRIVE & DISK DRIVE

Space Doubler

[illegible]

U971 EPU V1.6 ONLY 99p
SUITABLE FOR WB2/3

18 DEMOS

MUST BE 18 AND OVER

X80 CINDY CRAWFORD (2)
X74 MADONNA (SEX) (3)
X01 SHOWER GIRL
X03 BODY TALK (2)
X09 MARIE WHITTAKER
X24 SABRINA SPECIAL
X25 DIE FILKINGER
X26 MADONNA EARLY DAYS
X28 KATHY LLOYD
X30 MEGA-MAID
X31 CALENDAR GIRL
X32 MAYFAIR
X33 UTOPIA (4 DISKS)
X45 GIRLS OF SPORT
X49 PAGE 3 GIRLS
X70 GON GON GIRL
X71 TINA SMALL
X91 CINDY CALENDAR '95
X96 HOT BABE 1
X97 HOT BABE 2
X98 HOT BABE 3
X99 HOT BABE 4
X100 HOT BABE 5
X101 BIG GIRL II
X102 FEMALE BODY BUILDER
X103 GIRLS GIRLS
X105 ELLE MACPHERSON
X106 CLAUDIA SCHIFFER

HARDWARE PROJECT III

Build dozens of projects including an accelerator for an A500 for less than £15. Install 3.5" HD in your A600 & A1200. Put your A500/A600/A1200 in a towercase for less than £30. Use 1.44 PC disk drive on your Amiga. Add a Pocket Modem to your Amiga & this could save you £££ (not for the beginner) ....3 disk pack only £5

MAGIC WB & EXTRA DISK

This is the cheapest way to obtain Magic WB extra. Each pack below will fill 12 disks when unpacked. (Very easy to unpack via click a few buttons).

MAGIC WB EXTRA PACK (01-12) 1..........£6.99
MAGIC WB EXTRA PACK (13-24) 2..........£7.99
MAGIC WB EXTRA PACK (25-36) 3..........£7.99

AGA21 Magic WB2.1 The latest Magic WB for A1200
U995 Magic WB 1.3 this is for the A500 1.3A500plus & A600

Magic Backdrop

This is ideal use with Magic WB or normal A1200 workbench (WB2 users require NICKPREF to use the backdrop)

Various Backdrop I (4).....£3.99
Various Backdrop II (2).....£1.98
Sexy Backdrop..........£0.99
New Amiga Logo BD.....£0.99
Magic Scenery BD (2).....£1.98
Glamour Face..........£1.98
All new backdrop 96 (5)...£4.95

PLEASE ORDER A DISK CATALOGUE ADD 70P OR 3 X FIRST CLASS STAMPS WITH ORDER

Go on

Subscribe – you can't afford not to



Why?

Because *Amiga Computing* is the best way of finding out everything you need to know about your Amiga and, if that isn't enough, each magazine also comes complete with 2 of the hottest disks crammed full of the latest software and demos.

SUBSCRIPTION HOTLINE

Phone: 0151-357 1275 **fax:** 0151-357 2813
or e-mail us at: database@dbdirect.demon.co.uk

Save £8!

Subscribe now and not only will you save over £8 off the more than reasonable rate of £58.50, but we'll also pay your local postie to deliver all 13 issues direct to your door, before they hit the shops, and guarantee you protection from any future price increases.



And save even more when you subscribe by Direct debit

DIRECT Debit

Subscribing by Direct Debit is the easy way to pay and stops you ever having to worry about your subscription to ***Amiga Computing*** lapsing again. Plus, you'll spread the cost over quarterly payments. And just in case that wasn't enough, we'll even throw in an added saving of £5 off the regular subscription price.



Amiga Computing priority subscription form

● I would like to save money with the following yearly subscription:

New	Renewal		
☐ 9799	☐ 9801	UK	£49.99
☐ 9688	☐ 9689	EU	£69.99
☐ 9690	☐ 9691	World	£84.99
☐	☐	Canada/USA	* $98

● I would like to save even more money with a UK quarterly direct debit ongoing subscription

☐ 9800 UK £10.99

Quarterly Direct Debit Instruction

AUTHORITY TO YOUR BANK/BUILDING SOCIETY TO PAY DIRECT DEBITS

Name of bank/building society ....

Address ....

Postcode ....

Name of account ....

Your account no. ☐☐☐☐☐☐☐☐

Sort code ☐☐ ☐☐ ☐☐

Signature(s) ....

Date ....

FOR OFFICE USE ONLY
Originator's Identification No. 8 5 1 4 1 2
Ref No. ....

Your instructions to the bank/building society:

I instruct you to pay Direct Debits from my account at the request of IDG Media.
The amounts are variable and may be debited on various dates.
No acknowledgement required.
I understand that IDG Media may change the amounts and dates only after giving me prior notice.
I will inform the bank/building society in writing if I wish to cancel this instruction.
I understand that if any Direct Debit is paid which breaks the terms of the instruction, the bank/ building society will make a refund.

Bank/building society may decline to accept instructions to pay Direct Debit from some types of accounts.

● I wish to pay by:

☐ Cheque/Eurocheque/Postal Order payable to IDG Media

☐ Credit Card (Visa/Access/Barclaycard/Mastercard/Eurocard/Connect) Expiry Date ☐ /

Card No ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

* *Canada & USA subscribers send to: Europress (North America), Unit 14, Bysham Drive, Woodstock, Ontario, NT4 1P1, Canada. Tel: 519-539-0200, Fax: 519-539-9725*

☐ *Tick this box if you do not wish to receive promotional material from other companies*

● Deliver my magazine to:

Name (Mr/Mrs/Miss/Ms) __________

Address __________

Postcode __________ Daytime phone no __________

Send this form to: ***Database Direct, FREEPOST, South Wirral L65 3EB.*** *(No stamp needed if posted in UK.)*

Your subscription will commence from the earliest possible issue

SYSTEM

Your essential guide to Amiga gaming

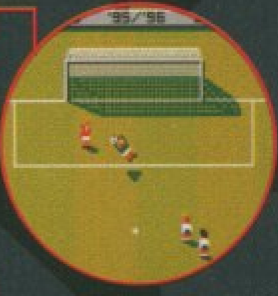
News:



You'll find all the latest gossip from the Amiga games world right here

Reviews

SWOS – Euro 96



The European Championship Edition has finally arrived, and apart from updated teams there's... nothing new

Chaos Engine 2



The Bitmap Brothers are back with an absolute corker. Don't miss out as it could be the best game of the year

Previews

Valhalla



Portsmouth-based Vulcan Software is already working on a new Valhalla and here's what we think of it so far

Legends

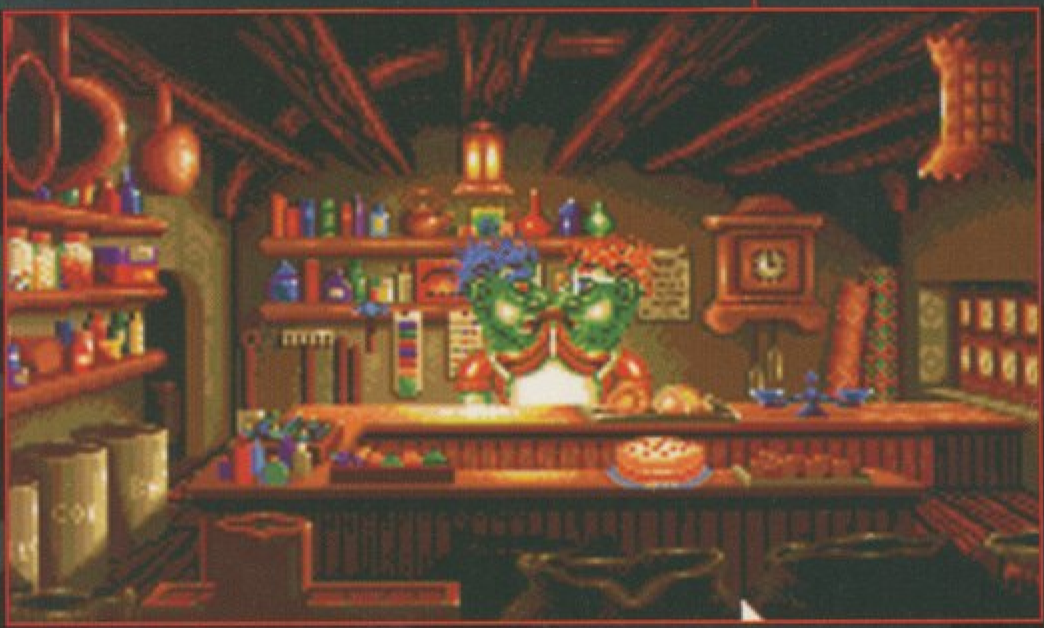


Guildhall Leisure returns with a Legend of Zelda arcade adventure where you control a little Indian. Great!

Cheat Mode

Simon the Sorcerer

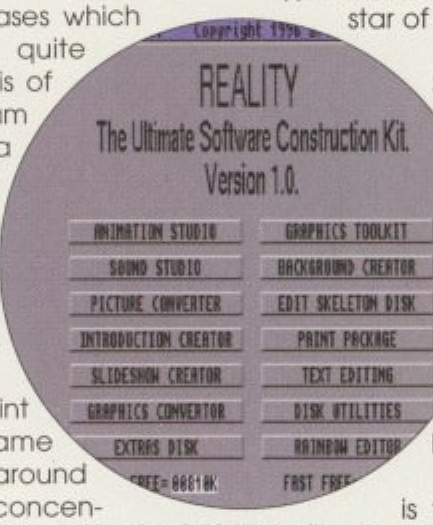
Anyone stuck on Simon the Sorcerer? Nope... right, well why don't you read it anyway



By Andy Maddock

A bucket load of games

BPM Promotions is a new games company that has penned in some future releases which are all looking quite exciting. The basis of the developments is a program called Reality which is a software construction kit written by BPM. It will be used on the new titles which include The Daring Adventures Of Robin Hood, Spacefighter, and Reality will also be released.



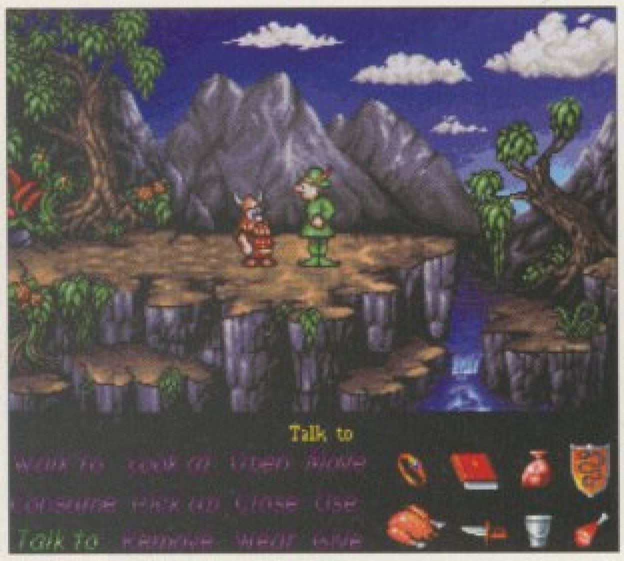
Reality is the software construction package which should have you knocking up quality games within minutes

Robin Hood will be a point and click adventure game and is scheduled for release around September. BPM is currently concentrating on the game design and graphics, making sure they are almost perfect before advancing.

Obviously, the game will feature Robin Hood himself alongside Friar Tuck, Maid Marion, Prince John and the Sheriff of Nottingham. It's basically a Monkey Island-type adventure but with Robin Hood as the star of the show.

The second project is called Spacefighter. You may think it looks familiar, a bit like Body Blows by Team 17, but BPM claims that Spacefighter boasts more characters, artificial intelligence, detailed backdrops, digitised speech and special moves. At the moment it sounds like a beat-'em-up to rival the brand new Capital Punishment, but we'll have to wait and see.

The final product for the moment is the actual software construction kit, entitled Reality. Four years' work has gone into making this program, helping people produce commercial quality software products over a short period. We'll have a preview next month.



Robin Hood is going to be the first adventure game. Let's hope it's going to be good



As you can see, Spacefighter looks amazingly like Body Blows, so if the gameplay can match it could be a winner

Slamtilt special editions

Here are a number of top secret, Slamtilt hidden features which can be accessed at the beginning of the game. For example:

- If you type SMILE while the table is scrolling up and down, the metal ball will be graced with a huge cheesy grin, and if you're about to lose, the face will change to a sulk.
- Type RADIOACTIVE and the whole colour scheme of the table will change. Try it more than once to achieve various effects.
- Type STONED and there will be a pseudo magnet underneath the table making it all weird.
- Type WIPEOUT and all the high scores will be reset
- And if you type ARCADE ACTION it will allow you to head straight for the arcade sections of Slamtilt.



Calling Sensible Soccer lovers

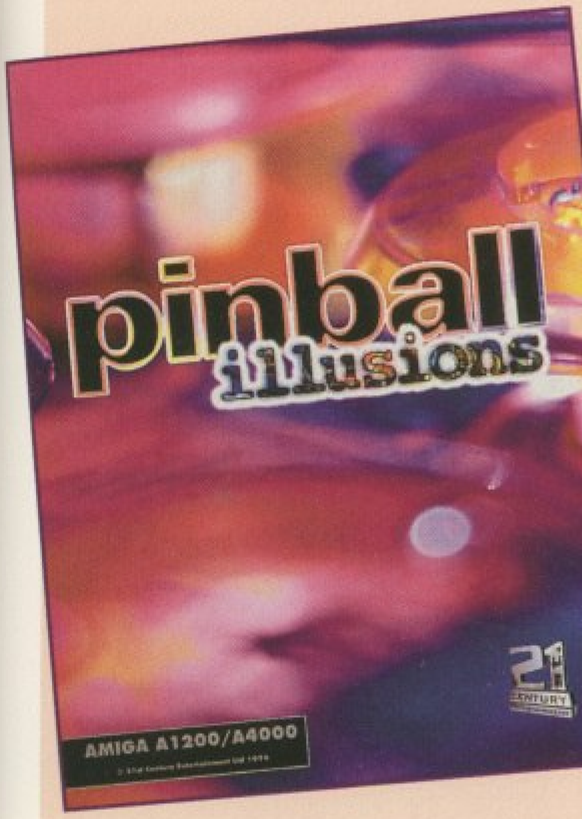
If you're a big Sensi fan then just wait until next month when we'll bring you a full guide on how to get to that elusive International Management position, and give you a step-by-step guide on how to be the best manager in the world.

We'll advise you on the players to buy, what to do with your money and international advice, as well as some general tips on getting more money and much more. Look out for our Sensi extravaganza next month!



Here's proof that the international management aspect does exist, although you do have to be as good as me to get there!

Freebies! Freebies! Freebies! Freebies!



If you're a really big pinball fan then you're going to love this even more. 21st Century Entertainment has kindly given us eight sets of Pinball games including Pinball Fantasies, Illusions, Mania and Slamtilt to give away. All you have to do is answer the following questions:

1) Which band had a top ten hit with the song 'Pinball Wizard'?
A) Blur
B) Oasis
C) The Who

2) Name another sport which uses metal balls?
A) Football
B) Tennis
C) Boules

3) What do you get if you cheat by banging the pinball table?
A) A crack round the head by the owner
B) A lost go
C) Arrested

Tie breaker

In no more than 20 words, say why you think you deserve a set of pinball games...

Now send your completed form to:

Pinball Compo, System
Amiga Computing, IDG Media
Media House, Adlington Park
Macclesfield SK10 4NP

Meet our other readers

Our *Amiga Computing* chat page is brimming with more people than ever before. If you fancy a friendly chat with some interesting Amiga owners and their friends, then this is the place to be.

I can guarantee there will always be someone there – if you call in at a reasonable hour – and you are quite welcome to ask questions about anything games related or otherwise.

There are two forums available. The first is *General Discussion* where you can stray away from the Amiga topic and talk about anything you wish, and then there's the *Questions and Answers* forum where you can leave your questions for us experts to answer.

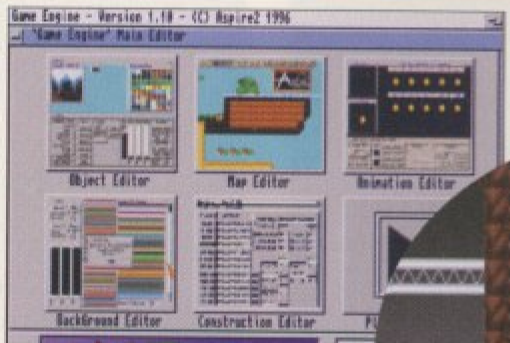
The magic URL is http://www.idg.co.uk/amiga-comp/chat.html



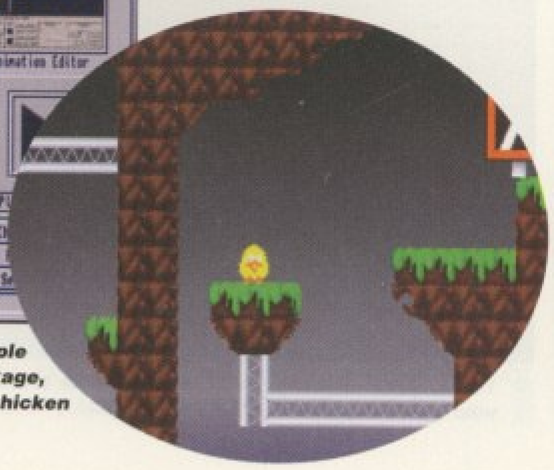
This is Kel. He's on the chat page at all hours. He is pictured here with his cow which he made in art. Super!

Game Engine

A new software company called Aspire 2 has decided to release a brand new software construction program. It uses some easy menus so you can fiddle around designing sprites and backgrounds within minutes. There's also an impressive example game featuring a chicken or a duck (I can't tell)!! We'll give you more information next month when we'll give it the full going over.



This is the menu screen where everything can be accessed



Fennah the Duck is the example game included in the package, although it looks a bit like a chicken

SYSTEM

review

Reviewed by Andy Maddock

Sensible World of Soccer Euro '96 Edition

GRAPHICS	89%
SOUND	88%
GAMEPLAY	93%
OVERALL	92%

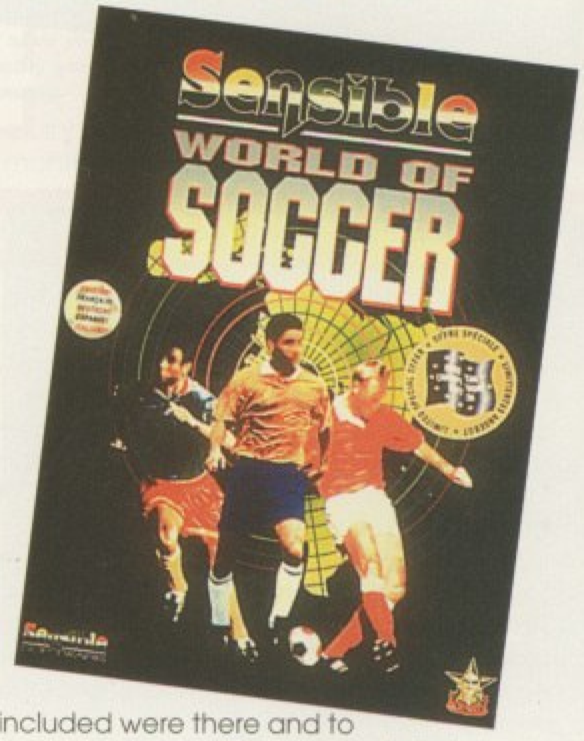
PUBLISHER	Time Warner Interactive
DEVELOPER	Sensible Software
PRICE	£19.99
DISCS	2
HD INSTALL	No
SUPPORTS	All Amigas

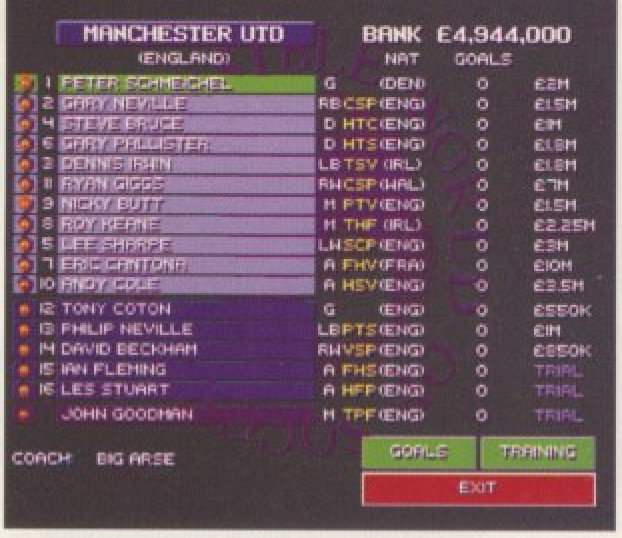
Over the last six months or so, Time Warner Interactive has been releasing Sensible World of Soccer editions like nobody's business. But why? It's probably because Sensible Soccer is reputed to be the best game ever on the Amiga and these new versions manage to keep the fans of the game perfectly happy by continually updating competitions and teams.

The biggest step for TWI was the 95/96 version where features such as displaying the name of the player in the top left-hand corner, animated crowds, team training and management records were introduced. All these features should have been included in the first version of SWOS.

Many people complained after the initial release of SWOS because it repeatedly crashed, the player ratings and values were all wrong and there were many small, annoying bugs which almost put people off the game for life. However, TWI stepped in with its first Sensible release and it was absolutely brilliant. All the features which should have been included were there and to top things off, all the players' data including values and skills were updated.

The problem with club football games is the





The Man Utd squad in full with the Neville brothers who are both great footballers – honest



Just in case you get bored of Euro '96, here's a screenshot of the good old Premiership

Minor alterations

You can also bear in mind that on the PD movement there are a few SWOS editors around allowing you to fiddle with the players' values and names. You should be able to find one on Aminet somewhere. The included custom team editor which comes with the original game is pretty awful because you can't import your own teams into proper competitions.

If you can get hold of one of these, then within minutes you will be able to update your game as soon as a transfer is made, which will please any SWOS lover.

‘ All the features which should have been included were there and to top things off, all the players' data including values and skills were updated ’



When you score the England supporters hurl themselves into the air in sheer jubilation. They probably know it's not going to happen often

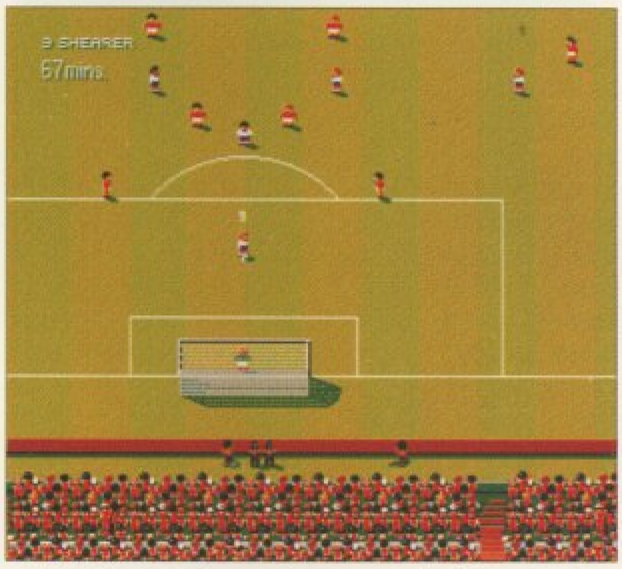
fact that players are transferring between clubs more than ever, and with the new ruling coming in for next season, the transfer market will see more movement from week to week. Obviously the game will then outdate itself and become unrealistic.

TWI has decided to launch its new release in line with what is the biggest football event to hit England in 30 years, and that's Euro '96.

By the time you read this the European Championships will have been battled out at various football grounds such as Old Trafford, Elland Road and Anfield to find the best team in Europe. However, the biggest talking point of the event has almost certainly been the groupings. Although Northern Ireland, Republic of Ireland and Wales failed to qualify, Scotland fought through to meet England in



All the greats are at the top of this list, although where are all those England players?



Alan Shearer steps up to score a goal after 18 months of nothing. Blimey... 18 months!

the same group, which will, without doubt, prove to be one of the most competitive matches for everyone involved.

Sensible World of Soccer is set to create all the finest moments by setting up the entire tournament for you. All the correct groups are selected with all their corresponding fixtures, and although Terry Venables decided his squad well after SWOS was released, Time Warner has managed to pick a side that corresponds with some of the team.



Here's Teddy Sheringham having a shot on goal, which is surprisingly saved by the keeper

Final word

The actual gameplay hasn't changed a single bit – you may have to wait and see if there's a Sensible World of Soccer '96/'97 before you see some changes. But for now, the main alteration occurs with the player data, with team and player names changing. And remember, this version is still in line with this season, so you won't be able to play as Man City in the first division just yet.

If you want to update your version of SWOS with all the latest player changes then do so, otherwise you could be advised to wait to see if there's a new version in the pipeline.



Our princely hero quite rightly ignores Peter Stringfellow dossing on a park bench



Useful objects akimbo in this hut/jumble sale arrangement



Nothing here? But there's a man eating a shoe behind you, you blind fool

Valhalla: Fortress of Eve



Previewed by Dan Whitehead

How well I remember the arrival of Valhalla into the Amiga games pouch. Squirting on to the scene at a time when many people were saying "Amiga's are really bad, I like PC games better", it's crisp speech-driven adventures almost made some people stick with their chunky, fudgy friend. Almost.

Well, time has moved on, the Amiga games scene is looking even shabbier than before and Daddy PC is cruelly rubbing vinegar in its eye, with help from the brutal brothers, Playstation and Saturn. Things look very dark indeed. Singing sensation David Pleasance shuffles into the shadows, crying like a girl. And then, heralded by trumpets and body-popping in the streets, Valhalla returns on yet another talkative steed to breathe new life into the sagging Amiga bellows. But is it too late?

Time may have been a bitter duchess to the Amiga, and time has moved on in the world of games as well. Our chirpy Valhalla hero is now all grown up. Grown up so much, in fact, that in the opening animation he's gone prematurely grey making him look like a bizarre genetic accident involving John Craven and a walrus. Despite his advanced ageing, or maybe because of it, he's also discovered the



A curious barrel, the purpose of which should keep you guessing



The billy-no-mates prince hangs out in the woods, with only a pink slug for company

> ❛ It doesn't seem to be a **huge** leap forward, but it's a **quality** product with a popular pedigree ❜

Ha ha you're dead

One of the most aggravating things about the original Valhalla game, for me at least, was the way it would wantonly kill you with hidden traps. Nobody likes sudden death, and this is reflected in the Fortress Of Eve. You now have an energy bar that depletes when you come into contact with a hurty thing, allowing you to at least try levers and switches without worrying that it could mean game over.



Our hero, part walrus, part John Craven

joys of puberty and now yearns for a girlfriend. And this, by jiminy, is where you lot come in.

Look at the screenshots, using your eyes. Things don't look radically different, do they? Of course, there'll be some saying "if it ain't broke, don't fix it", and there'll be others saying "well, that's just lazy, I'm going to sulk." These two schools of thinking will probably have a big fight, with chairs and everything, leaving us to concentrate on the game. If you've played any of the previous Valhalla games, then you'll know what to expect. Wander about, find objects, talk to people and figure out what goes where. It's a tried and trusted style, and it works well with Valhalla's special 'cloak of gimmicks'.

Lurking in the folds of this cloak are the following muffins. Speech is where it's at, once more. The squeaky voiced prince chats about what he's doing and what he sees in a technically impressive, but mildly irritating way. Best of all is when he describes his beloved subjects as 'ignorant peasants' to their faces, yet, unfortunately, none of them punch him in the jowls for this arrogant slur. Some of them will offer clues, such as "I make painkillers", and others just say "hello". When I started playing, and the prince started his wittering, those around me pricked up their ears in recognition, but were soon scowling at me as his voice began to grate. So thankfully, there is an option to gag him and just use text.

Minor changes to the game have been implemented, just to keep things moving with the times. Most noticeable is the fact that the viewpoint has shifted from overhead to a more isometric view, allowing you to get a better idea of what objects are. It also looks nicer, if you want my opinion. Another addition is what can only be described as 'intelligent virtual surfaces', which is a fairly meaningless description that I just made up to make it sound more technical. What it means is that your footsteps will change depending on the surface you're walking on. If it's earth then it's a sort of plod, and if you take a short cut through the grass, you make a sort of scrunchy squelch noise.



Levers everywhere, but what do they do?

Insight

Fortress Of Eve should be dancing on the village green in next to no time because the version we messed about with was pretty much done, apart from some extra buffing on the sound and graphics. It doesn't seem to be a huge leap forward, but it's a quality product with a popular pedigree. And that's nice. We'll give you a full review when we feel like it, you cheeky imps.



Look, the Navvie is still in the game, hip hip hooray. Let's all have a party



Brigand. Isn't that a girl's name? No, probably not, I'm thinking of Bridget

Chaos Engine 2

Reviewed by Andy Maddock



GRAPHICS	90%
SOUND	89%
GAMEPLAY	92%
OVERALL	92%

The Bitmap Brothers is probably one of the most respected software developers ever in the computer game industry. We have been brought delights such as Xenon, Xenon 2, Speedball, Magic Pockets, and Gods, amongst others.

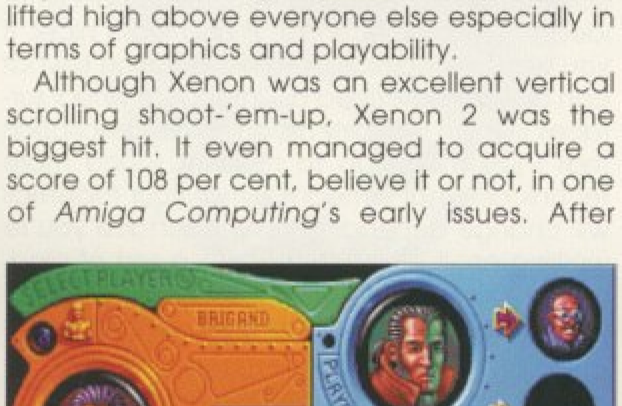
At a time when the Amiga games scene was only just getting itself together producing the odd playable game, The Bitmap Brothers lifted high above everyone else especially in terms of graphics and playability.

Although Xenon was an excellent vertical scrolling shoot-'em-up, Xenon 2 was the biggest hit. It even managed to acquire a score of 108 per cent, believe it or not, in one of *Amiga Computing*'s early issues. After that, the games just kept coming, each one slightly better than the last, and in my opinion, the best was most definitely Speedball which was certainly beyond my expectations.

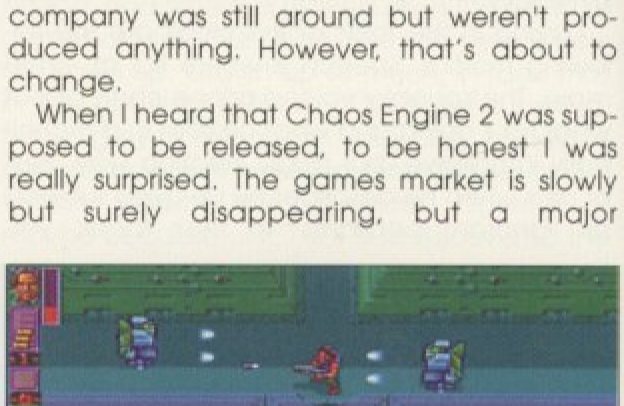
The Bitmap Brothers' last contribution was Chaos Engine, and then there followed an absence from the gaming scene – the company was still around but weren't produced anything. However, that's about to change.

When I heard that Chaos Engine 2 was supposed to be released, to be honest I was really surprised. The games market is slowly but surely disappearing, but a major

PUBLISHER	Time Warner Interactive
DEVELOPER	The Bitmap Brothers
PRICE	£29.99
DISCS	3
HD INSTALL	No
SUPPORTS	A1200



You can select your character from about four, I think. I can't remember, but you'll find out when you buy it



You have to defeat a number of robots to get points, and most of all to get them out of the way

Sight and sound

As with all of Bitmap's releases, the graphics are excellent with smooth animation, making Chaos Engine a pleasure to play, and the tough challenge your opponent will present you, be it either human or computer, will increase the longevity of the game.

Actually, if you beat the computer opposition during your first bout, his intelligence will be increased for the next round, so before you think you're an expert and play again, remember that simple point.

The sound effects have an added touch too. As you get closer to your opponent or the exit the music and the tempo will increase, therefore making it more exciting. Once again, it's a small touch but one which contributes to making another excellently thought out game by the software developers we have come to admire.

developing team has come up with a major title. Blimey, things must be looking up.

If you played the original Chaos Engine you will realise that the second in the series looks remarkably similar, apart from some new levels. As far as the basic sprites and levels go they are almost the same, but the gameplay *is* different. This time more emphasis has gone into a two-player option where you can challenge each other.

The basic idea of the game is to pick up a key to open the door to the end of the level, and the first to do this wins. It's a simple idea which works superbly for a game like Chaos Engine. If you're playing by yourself, you will be working against the computer. You can pick up various power ups and weapon



You have to throw dynamite over the wall to blow up this thing and then you can pick up the remains



There's the key, but you've just fallen flat on your face! Get up, dust yourself down and finish the level



There's that bald man again



The explosions are very Bitmap-like, you will see them on all sorts of games

boosts to help you in your goal but, failing that, you can give your opponent a knock round the back of the head to stun him, giving you enough time to find the key and run away like hell.

Instead of coming out with your guns blazing, you can simply play cat and mouse and hide from your opponent – although not for long because there is a handy map which will point out your position.

Even if your opponent gets to the exit before you, you can still beat him because the game is based on points and as there are various bonuses lying around you can constantly increase your score. However, the biggest point bonus is finishing before your opponent.

During the later levels, you will have to encounter some robots and other obstacles which will do their best to stop you and your opponent, therefore making it much harder.

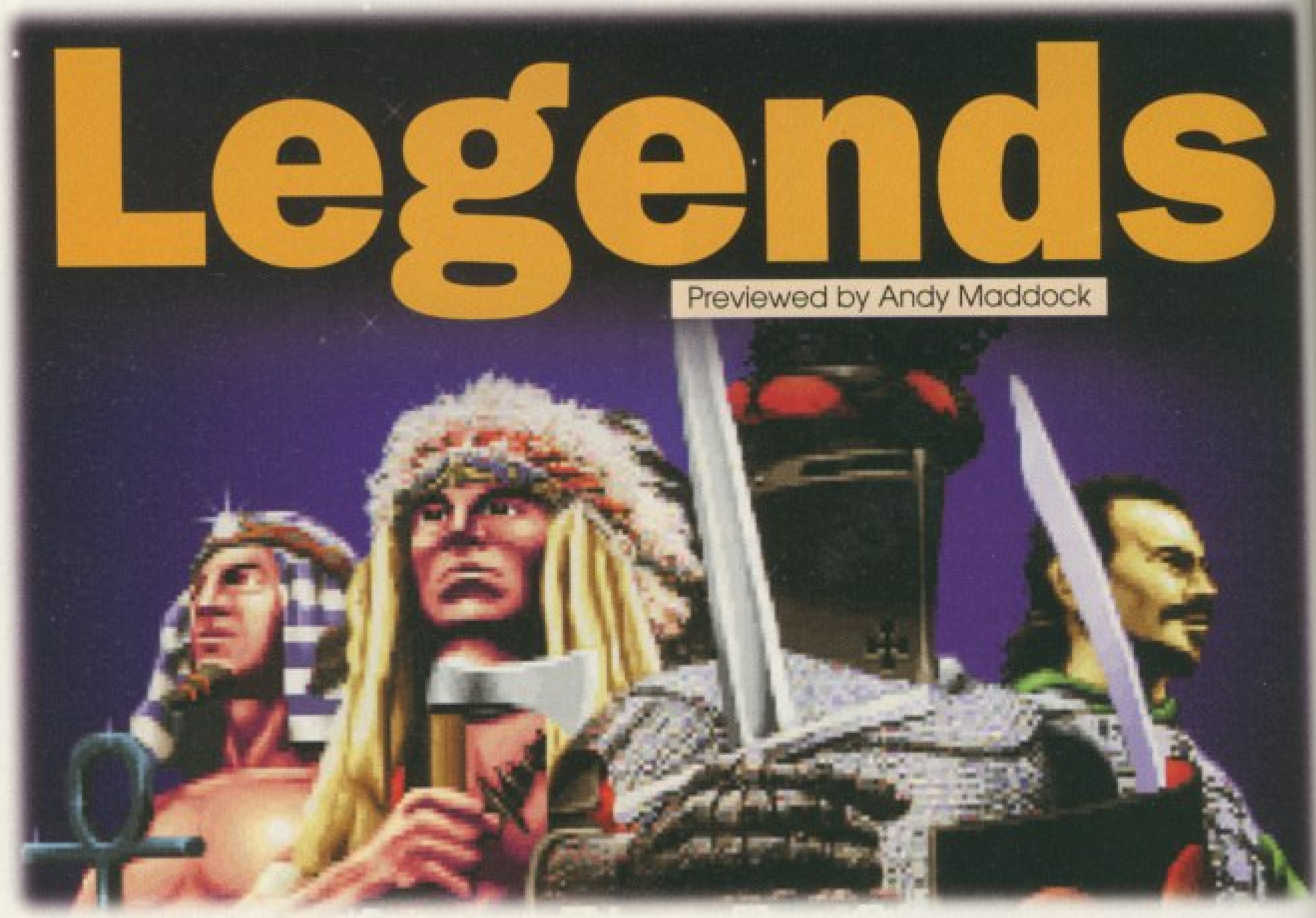
The main change you will undoubtedly notice in the game is that you can lean up against walls to dodge enemy fire. This is a simple but effective touch which gives you an extra second to think about your next move. Also, you can walk up and down stairs and jump off platforms which add more of a maze element to CE2.

Final word

Whether you thought Chaos Engine offered enough to warrant a sequel at a full price I can't say, but if you never had the opportunity to purchase the original then Chaos Engine 2 must be placed at the top of your list – ahead of anything else.

‘As with all of **Bitmap's** releases, the graphics are excellent with smooth animation, making **Chaos Engine** a pleasure to play’

Legends



Previewed by Andy Maddock

After Team 17's Speris Legacy came out, the need for a Legend of Zelda clone seemed to disappear. However, Guildhall Leisure is trying to get in on the act with its potential Speris beater called Legends.

Legends was originally designed by Krisalis, its first game since, probably, those Man Utd games. Incidentally, about two years ago Krisalis intended to publish it themselves but then decided not to. While Legends was knocking around, Guildhall Leisure was fast becoming one of the leading Amiga software houses and now the two have come together, in perfect harmony.

As soon as you load the game up it has quality written all over it, just like it should from a software developer who has gained much respect from previous releases. If you've ever played Legend of Zelda on the SNES or Speris Legacy, you'll get an idea of how it looks and plays. Basically, the idea is to find some kind of person who will be able to stop evil things happening to the world – the usual story really. On the way there are various people willing to point you in the right direction, and there are others who either like to throw you off the scent or just simply kill you.

In Speris Legacy you were in control of a little sprite which looked remarkably like Blackburn defender Colin Hendry. In Legends you are placed in the capable hands of a little Red Indian, a bit like Little Plum from the Beano, and your first task in hand is to find a weapon to beat off the bad geezers. The first weapon you will come across is, surprisingly, a bow and arrow which will dispose of hostile guests within a few seconds. With this you will be rewarded by some huge hearts which will increase your health.

There are plenty of little gifts you can find hidden in trunks and in various other places which



Ooh, I wonder how much reality is actually in that. Maybe Aliens do exist and they're going to wipe us out



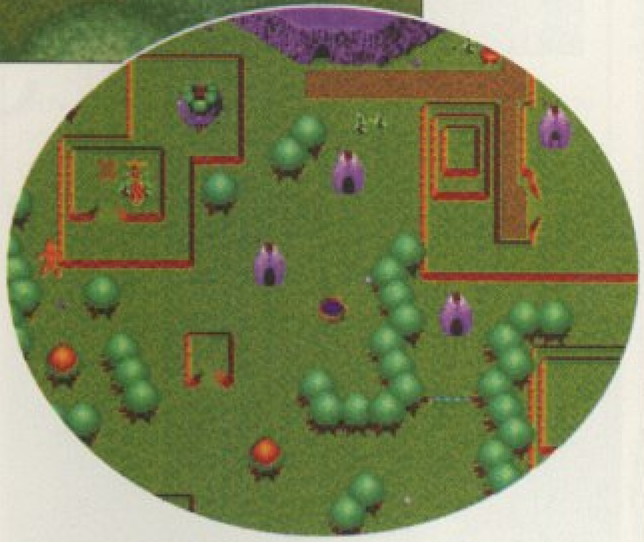
The bow and arrow will be the first weapon you pick up and will dispose of your enemies within seconds



Picking up the heart will replenish your energy and let you take on harder enemies



See that big totem pole, you used to be able to win those in Cubs and Scouts – God knows why...



The map shows raised ground and huts all over the place which is handy if you're a newcomer to the area

A breath of fresh air

There are a lot of comparisons between The Speris Legacy and Legends but I think Legends will have the edge if it manages to maintain the quality shown throughout the game.

The introduction scenes are excellent and cartoony, setting a more light-hearted game which is a far better way to present it. Even the music portrays a jolly feel which will undoubtedly inspire you to carry on playing.

It's about time we came across a jolly platform romp to steer us away from the technical side of Doom-type engines which are forever hounding us. Legends could be the breath of fresh air to change the ways of software developers.

will increase your points total, amongst other things.

The actual game maps are huge and will take you hours to navigate, never mind complete, but if you do happen to get lost, pressing function key 1 will present you with a map which is handy for guiding yourself to new places.

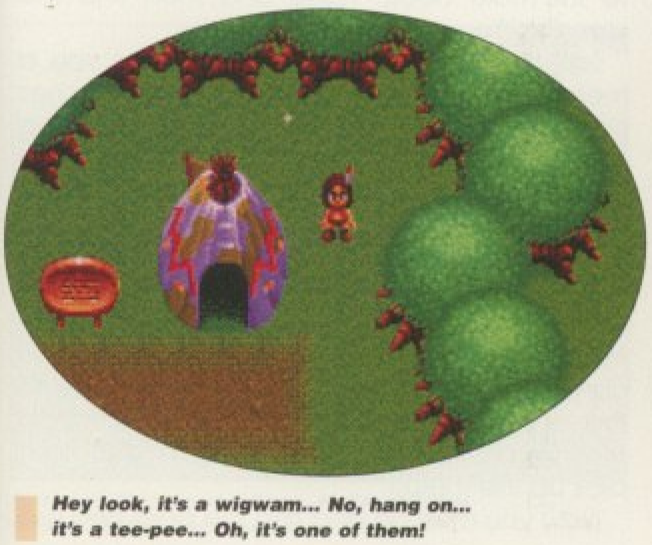
When some helpful information pops up to aid you in your quest, you will be presented with a small blue box which will either contain questions posed or information received from a wise man or someone else.

Throughout the game you will regularly be given tips or subtle hints which may give you some ideas where to go or who to speak to and by the time you've managed to complete the first level, you'll be worn out.

The character animation is nowhere near as smooth as The Speris Legacy, but because there are more frames in Legends, this is what makes it a graphical delight.



Your inventory will show everything you have in your possession and all the weapons you have the ability to use



Hey look, it's a wigwam... No, hang on... it's a tee-pee... Oh, it's one of them!

Insight

Legends is around 95 per cent complete and some small tweaks are going to be made before it's released in the shops. Only then will we see how Legends shapes up compared to its Team 17 rival, but to me it looks like being an excellent arcade adventure which will present any standard of gamesplayer with a challenge. Let's hope it maintains these credentials in the final version.

When the final version decides to appear you can be sure we'll give it a full review. Watch this space...

> ‘It's about time we came across a **jolly** platform romp to steer us away from the technical side of **Doom-type** engines. Legends could be the breath of fresh air to **change** the ways of software developers’

By Andy Maddock

Simon the Sorcerer





Before you start the game, take a good luck at the map screen so you know what this place is



Talk to everyone you possibly can as they may give you some handy hints on what to do next

Your first job is to pick up the magnet from the fridge, and then take the scissors from the drawer. Leave the hut, go to bar and talk to the wizards and they will send you looking for a staff

Before leaving the hut, take the matches from the top of the fruit machine, and by using the scissors on the dwarf you will then have a piece of his beard.

Go and find the Blacksmith where you can pick up the object that lies on his workbench and then head off into the woods. You will eventually come across a barbarian with a thorn stuck in his foot. Talk to him and you can then pull the thorn out for him. In return, the barbarian will give you a whistle which you can use later in the game. Before you leave, talk to the hole about fossils and then find the woodsmith.

Although it's not the most **recent** adventure game, some people still need help. Here is the **first** part...



Try and pick up everthing you can. The things that can be looked at can usually be used

Talk to the woodsmith until he gives you a metal detector. Now, go outside the witches house and move the well handle, take the bucket and leave. Take the right direction at the T junction on the way back. Talk to the tree stump until it asks for some mahogany. You must now go back to the bridge to talk to the troll. He'll take the whistle off you and use it. The barbarian will appear and remove the troll from the bridge so you can walk by, and you can pick up the placard to find the oaf. Talk to the oaf about watering beans, return, then pick up the beans from the heap and then pick up the melon.

Now you must go and find the bard and use



Talk to this weird lizard-type man to gain some information about something

the melon in the sousaphone. Go to the mountains to find the giant and use the sousaphone and he will mess around with a tree, allowing you to get to the other side. Now you must find the screen on the map which contains some fossils. Once you get there you must pick up the rock.

Next, you need to visit the place on the map surrounded by a blue circle, and use the metal detector. Return to the blacksmith and use the rock on his anvil. Return to the man in the hole and give him the fossil. Now tell the bloke about where the metal detector is.

Return to the blue circled place and you will see the bloke digging away. Look at the dirt and then pick up the ore which you must give to the woodsmith. Go back to the blacksmith and use the ore with the anvil and then give the axe head to the woodsmith. Go and find the druid's house. Pick up the ladder, enter the house and pick up the cold remedy and jar.

Go to the dragon's cave and use the remedy on the dragon – now you can pick up the extinguisher. Go back to the woodsmith and take the pin from the table and put out the fire. Now open the woodsmith's store and pick up the mahogany. Go back to the tree stump and talk about the mahogany and then get the woodworm in your hat. Now it's time to go to Rapunzel's castle and use the thing you found on the blacksmith's table on the bell.

Move the bell and then pick up the hair – after the magic you will have a pig. Use the woodworm on the floorboards and use the ladder in the hole, then go towards the tomb and open it. Then repeat the process, pick up the staff and return to the bar to present it to the wizards.



Here's the compost heap. Make sure you pick up the beans before you leave

Part 2



You will meet some kind of troll man along this screen. Try not to upset him or that'll be the end of you

Now you must go to the low budget candy house and use the repulser on the truffle door and then enter. Pick up the smoke box and pick up the hat. Now go outside where you can use the smokebox and the matches and pick up the wax left by the bees in the hive. Now go back into the bar. Talk to the barman about drink and when he bends over, use the wax on the barrel behind him. He will then give you a voucher. Go outside and pick up the barrel.

Find the owl and talk to it until it drops a feather, then go to the mine. Pick up the rock outside and see that it says 'beer'. You must use this password to get into the mine – wear the dwarf beard before though. When you get in the mine, give the barrel to the guard and he will reveal a key. Pick it up, leave the room and enter the left-hand passage. Pick up the hook and use the key in the door. Once inside, offer the guard the beer voucher and ask for gems.

Leave the mines and travel to the cave. Use the hook on the boulder above it and walk to the boulder. Use the magnet and the rope with the hole three times.

Return to the village and give the bloke a gem. Return to the bar and give your money to the wizards.

That's the end of this first instalment. We'll be back soon with the final parts to put you out of your misery.



The giant will sleep away while you can pinch his bracelet. Although, don't forget kids, it's wrong to steal!



AMIGA Snippets

COMPUTING

AMIGA GUIDE

Are you looking to put more colour into your home life?

Crave a more animated existence?

Or just fancy an all new, sharper image?



then grasp the opportunity firmly by the hand, shake it and take advantage of the latest, fabulous *Amiga Computing* reader offer

Personal Paint 6.3 order form

☐ **Please rush me a copy of the amazing Personal Paint V6.3 at the unbelievably low price of 17.50 (including package & posting)**

Deliver to:

Name (Mr/Mrs/Ms/Miss) ______________________

Address ______________________

____

Postcode ____________ Daytime phone ____________

I would like .... copies of Personal Paint v6.3 at £17.50 each.

I wish to pay by:

☐ Cheque/postal order payable to IDG Media

☐ Credit card

Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Expiry Date ____ / ____

Please allow 28 days for delivery while stocks last

☐ *Tick this box if you do not wish to receive promotional material from other companies*

Personal Paint v6.3

for a ridiculously low offer price of £17.50 (rrp £49.99)

Personal Paint features some of the finest, most comprehensive image processing, painting and animation features of any Amiga art package. With support for multiple file formats, Personal Paint is ideal for creating graphics for the World Wide Web, and its support for any Amiga, including those with RTG graphics cards, means that Personal Paint is a must. Other features include:

- ***Animation storyboarding***
- ***Virtual memory***
- ***Stereogram generation***
- ***24-bit printing***
- ***Colour reduction techniques***
- ***ARexx interface***

This offer is strictly limited, whilst stocks last, so make sure you get your order in as quickly as possible to guarantee your copy. Send your completed order form to: Personal Paint 6.3 Offer, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP.

Dave Cusick examines a few programs to increase your productivity

medical

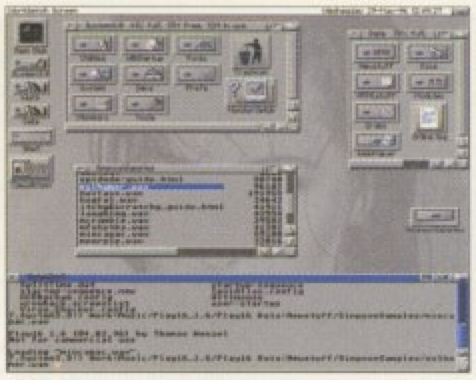
The essentials of life

When the Amiga team designed Workbench 3.0 they no doubt tried to make it as friendly, powerful and efficient as possible – and to a large extent they succeeded, because few who have used the Amiga's GUI would deny that it is one of the most configurable and easy-to-use interfaces in existence. However, that doesn't mean to say that it cannot be improved upon.

The obvious additions are things like Magic Workbench and Magic User Interface, but there are plenty of other programs which will prove just as handy, and many of them have been around a few years. A few of the following godsends have appeared on *Amiga Computing* coverdisks in the past, and if you can't find them after rooting through your disk box then they will certainly be available from good PD Libraries or from Aminet.

Take KingCon, which I believe is no longer even under development. KingCon has, for some while now, been making the Shell a more flexible and usable system for Amiga owners everywhere. It introduces much needed features such as a scroll bar to the Shell window, and allows you to save the buffer to disk or clear it at any time. It features filename, device name and command completion, so you could, for instance, switch to C: and type "Setk" then Right Amiga+F, and KingCon would fill in the rest of the SetKeyboard command.

You can also drop icons into the Shell window, whereupon KingCon will magically make their full path name appear in inverted commas.



Drag your shell window into the '90s with KingCon

The Shell can even be Iconified. KingCon will revolutionise the way you use the Shell. In fact, the only problem with this marvellous program is a purely cosmetic one – it doesn't appear to agree with Urouhack, so if you are running both together you may notice that part of the downward scroll icon on the Shell window is hidden by the resizing icon.

Dimensions

Next up is PowerSnap. This lovely commodity by Nico Francois, creator of PPmore and a multitude of other invaluable Amiga utilities, adds a whole new dimension to the Amiga clipboard. Using Powersnap you can cut and paste characters between all sorts of different programs. It doesn't quite work perfectly with every application in existence, but it so enhances the basic, underpowered clipboard function that you'll never be able to live without Powersnap again. Another handy patch, and one which is amongst several included in do-it-all commodities like MCP these days, is CacheFont. As anyone who has been using a hard drive for some time will know, it's very easy to accumulate loads of fonts over a time. Opening the Fonts: directory can then become a frightening prospect as there will be an extremely lengthy wait before the files inside are displayed.

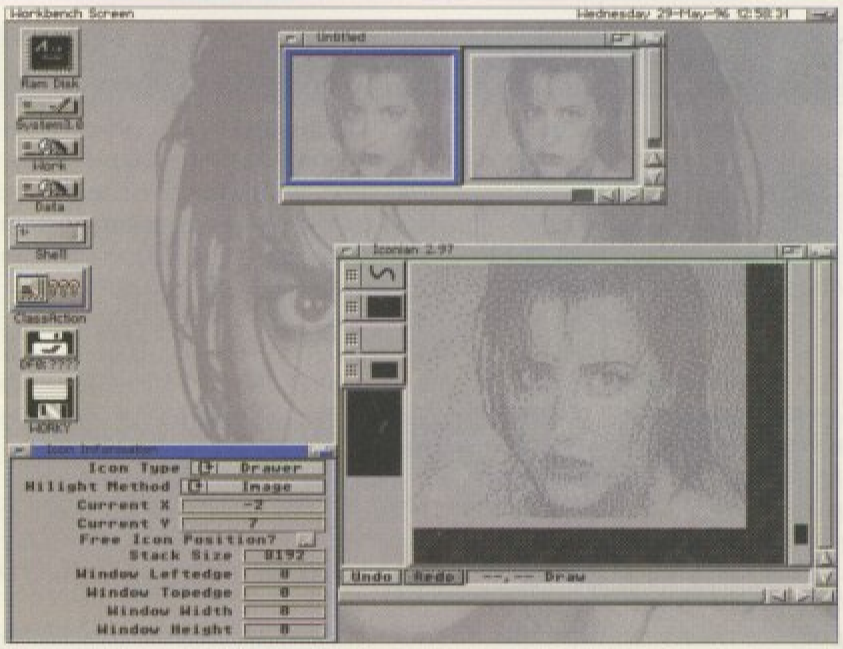
One option is simply to delete fonts left, right and centre but this could be problematic (which fonts are required to use such-and-such a program?), and it seems a little drastic. A far more attractive proposition is CacheFont, which works by creating a file containing a list of everything in the Fonts: directory which is used whenever you take a peek there. This saves a huge amount of time. If you're going to add new fonts you will need to update the CacheFont file every now and then, but that's a small price to pay for the phenomenal speed increase.

CacheFont isn't the only essential which is now to be found in MCP – AssignWedge is a similarly invaluable patch which Alien Design has included in its superb commodity. If you commonly encounter problems when installing software to a hard drive because you have forgotten to make the necessary assigns in the user-startup file, then AssignWedge is the answer to your prayers. It allows you to make the assign on the spot, using a file selector, so you won't have to fiddle around in a text editor and then reboot just to try out that new game or utility.

Icon see clearly now

Have you ever wanted to update lots of icons on your hard drive but been frustrated by the long-winded approach taken by IconEdit? IconEdit is one of the least useful tools supplied with Workbench 3, and there are some excellent replacements around. Perhaps the best is Iconian, which allows you to design ridiculously large and colourful icons, provides a host of handy drawing tools, and has more options than IconEdit has had hot dinners – or something.

Serious iconophiles will also find they cannot live without a utility called IconImage by Martin Lanza. When run, IconImage creates a little AppWindow. Onto this you can drop a source icon and then one or more target icons. IconImage will copy the image to the target icons without overwriting any tooltypes, and without a great degree of messing around on your behalf. If you've got a drawer full of files all begging for identical icons, you need look no further than IconImage.



IconEdit is among the first Workbench Tools you should replace – Iconian performs the job far more effectively

Paul Overaa's outlines a way of altering Amiga DOS file protection bits

Changing the guard

part 2

Last month I outlined the purposes of the file protection bits and explained that programs can obtain flag state information from a file's FileInfoBlock. There are actually two ways of doing this: You can open the file and then perform an ExamineFH() function using the file handle returned by the Open() routine, or you can obtain a lock on the file using the DOS library's Lock() function and then use Examine() to set up the FileInfoBlock information.

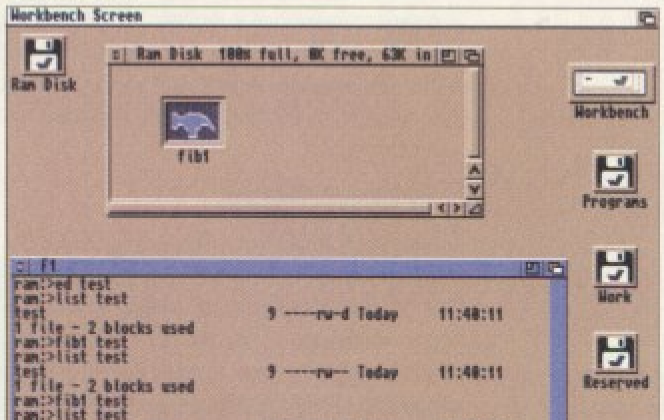
Either way, it is the responsibility of the program to allocate space for the FileInfoBlock structure and here, a variety of approaches are possible: Firstly, you can include a simple static ds.b declaration in your program to reserve a suitable amount of space (the structure size is defined as fib_SIZEOF in the dos.i include file). In this case it's necessary to make sure the structure is long word aligned and with Devpac you do this by including a cnop 0,4 directive before the structure allocation like this:

```
        cnop 0,4
FIB     ds.b fib_SIZE
```

Another option is to use the exec library's AllocMem() function to allocate memory, releasing it with a FreeMem() call after use (this automatically produces a long word aligned memory block). The third approach is to use the DOS library AllocDosObject() function coupled with a DOS_FIB flag to indicate that we want to allocate a FileInfoBlock structure (this flag is also defined in the dos.i include file). When this latter approach is used a corresponding FreeDosObject() call must be used to release the FileInfoBlock after use.

Once an AmigaDOS initialised FileInfoBlock is available the protection flags can be read and the DOS library's SetProtection() routine used to alter the state of the flags. The example provided on the coverdisk this month does just this. It's a simple Shell-based program which toggles the delete flag of a specified file using the file lock + Examine() approach.

Because routines like Lock() will fail if non-existent files are specified, it's best to structure the program in such a way that Examine(), SetProtection(), or UnLock() are never performed on files that were never found in the first place. This, of course, is just a matter of testing the return values of the various functions and branching accordingly if things have not gone well. You'll be able to see how I've done this from the code fragment shown in listing 1.



AmigaDOS' list command being used to check that this month's example works

```
lea         buffer,d1               filename
moveq       #ACCESS_READ,d2
CALLSYS     Lock,_DOSBase
move.l      d0,filelock_p           BPTR
                                    pointer!
beq.s       CLOSEDOS

move.l      d0,d1                   filelock_p
move.l      #FIB,d2                 address of
                                    file info block
CALLSYS     Examine,_DOSBase
move.l      filelock_p,d1
CALLSYS     UnLock,_DOSBase
lea         FIB,a0
move.l      fib_Protection(a0),d2
bchg.l      #FIBB_DELETE,d2
move.l      #buffer,d1
CALLSYS     SetProtection,_DOSBase
```

Listing 1: The main code fragment from this month's example

Since SetProtection() requires the new 32-bit protection bit mask to be in register d2, I've chosen to copy the protection bits into d2 as soon as Examine() returns by loading the base address of my FileInfoBlock structure into register a0 and using indirect addressing like this:

```
lea         FIB,a0
move.l      fib_Protection(a0),d2
```

Changing the state of the flag is easy. We just use the 680x0 bchg instruction to invert the state of the delete flag:

```
bchg.l              #FIBB_DELETE,d2
```

The 680x0 bset and bclr instructions, which could be used to explicitly set or clear a protection flag, would, of course, be used in exactly the same way.

Command Line Loop

You'll find the source code for the example on disk as the file fib1.s. The runable form, needless to say, is called fib1. Try running it from the Shell using this sort of command line:

```
fib1 <filepath/name>
```

and use the AmigaDOS List command to examine the state of the delete flag. Each time you run the program on a given file the state of the flag will change.

You'll notice, incidentally, that the example uses a short loop to copy the filename supplied on the Shell command line into a buffer. For those of you who haven't met command line access before, here is a brief explanation of why this has to be done. When a program starts from the Shell it gets provided with two bits of information. Firstly, register a0 points to the first character of the parameters that have been supplied on the command line. Secondly, register d0 contains a count of the number of characters present.

The command line information is actually stored in a private Shell buffer area and the end of the line is terminated with a linefeed character. As it stands, the filename that we could read directly from the command line is of no use (because it isn't null terminated), and since, strictly speaking, programs shouldn't make alterations to the text stored in the Shell's own private buffer, we have to make a duplicate copy.

The dbra loop I've used does just that – it copies the filename on the command line into the program's own buffer replacing the terminal linefeed with a NULL as it does so.

Function Docs

As well as the example code itself you'll also find details of all the functions that have been used on the coverdisk. They're stored in the file functions_aug96.eb and to view them you'll to need load the file into the EasyBaseAC utility (see the additional coverdisk readme notes for more details)

Paul Overaa delivers some help identifying ARexx port names

arexx

Port of call

Like most ARexx users, my system occasionally throws up 'Host environment not found' errors when I run scripts. In all such cases it's either because the program my script is trying to talk to isn't up and running, or it's running but using a different ARexx port name for communications than the one I had specified. In the latter case, this might be due to a typing slip in my script, but it could also be due to an error in the documentation of the program being used. Port names are case sensitive and in my time I've come across quite a few utilities whose docs have given the port names using the wrong case.

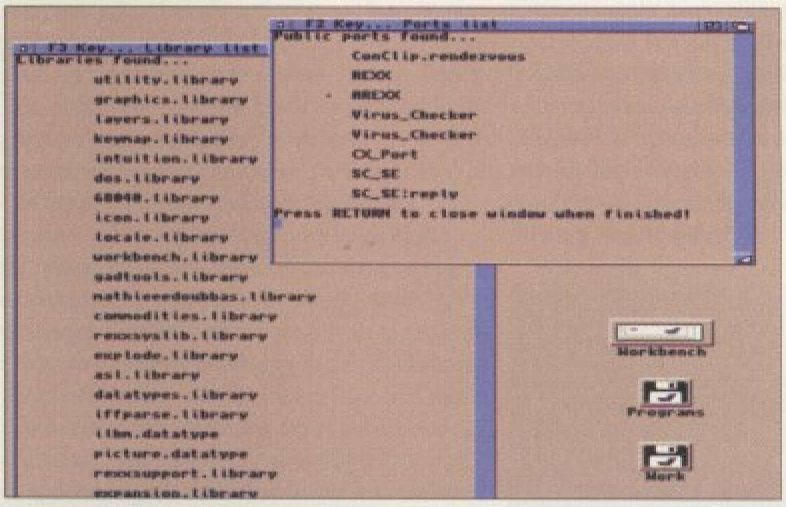
Whatever the cause, a good first step in such cases is to get a list of all currently available public ports, and on my system I have an ARexx function key set up that produces such a list whenever the F2 key is pressed. It's done using the rexxsupport library ShowList() function and the code required is surprisingly straightforward. Firstly, we check to see whether the rexxsupport library is already active or not (installing it if necessary). Then ShowList() is used to place the delivered port names into a string called port$, and finally, a 'do-end' loop is then used to separate and display the names on screen.

In order to get an ARexx script tied to a function key you need to use the FKey tool. Select the New Key gadget and enter the name of the function key (F2 in the case I'm talking about). Then choose 'Run ARexx Script' from the command box and enter the name of the script to be run. Finally, use the 'Save Defined Keys' Project menu option to save the created function key definition to disk.

It's always useful to name the script after the key itself so it is easily recognisable. My F2 key script, for instance, is called F2.rexx. It's also best to save scripts in the rexx: directory (usually assigned to Workbench:s) because such scripts will then always be found by the system. Do note, incidentally, that for FKey function definitions to be usable the FKey commodity needs to be actually running. The easiest way of ensuring this is to drag the FKey icon, or a copy of it, into your WBStartup drawer – that way the utility will always be active once your system has booted!

```
/* F2.rexx */
LINEFEED='0A'x; TAB='09'x
TEXT1='Public ports found...'||LF
TEXT2='Press RETURN to close window when finished!'
WINDOW_DEF='con:100/200/400/200/F2 Key... Ports list/close'
if ~Show('L','rexxsupport.library')
        then do
                call AddLib('rexxsupport.library',0,-30,0)
        end
port$=ShowList('P')
call Open(window,WINDOW_DEF)
call Writeln(window,TEXT1)
do i=1 to Words(port$)
        call Writeln(window,TAB||Word(port$,i)||LINEFEED)
end
call Writeln(window,TEXT2)
Readch(window,1) /* soak input and quit */
exit
```

Listing 1: A port listing script that can be tied to a function key



Typical displays produced by this month's example scripts

A COMMON SLIP

People often complain that scripts which work perfectly well when executed from a Shell window fail to work once they are linked to a function key. The reason is that scripts started via a function key do not automatically have anywhere to send their output. The solution is simple – any script run via a function key must open a suitable window itself. It's easy enough to do using ARexx's Open() function in conjunction with a window specification and the code will normally look something like this:

```
call Open(window,'con:100/200/400/200/F2Key... Ports
list/close')
```

It's also important that output from the program actually gets sent to this window, and to do this you need to use Writeln() or Writech() functions rather than the ARexx SAY instruction. For example rather than writing:

```
say Word(port$,i)
```

it is necessary to use something like:

```
call Writeln(window,Word(port$,i))
```

You'll get an idea of how all this works in practice from this month's examples. You'll find two scripts on the coverdisk. F2.rexx produces the port lists I've been talking about, and F3.rexx uses the same ShowList() function to produce details of the system libraries in use. Tie the examples to function keys as I've explained and experiment. Who knows – when you see how easy it is you may well be encouraged to get some of your own scripts running in this way.

Don't forget, incidentally, that function keys have many advantages over icons and menus. They're always available and it's far easier (quicker) to hit a function key than it is to grab hold of the mouse and select a menu item or double-click on an icon. What's more, function keys, unlike icons, do not take up valuable Workbench screen space!

Dave Cusick takes a look at some of the programs that Web Surfers can't afford to be without

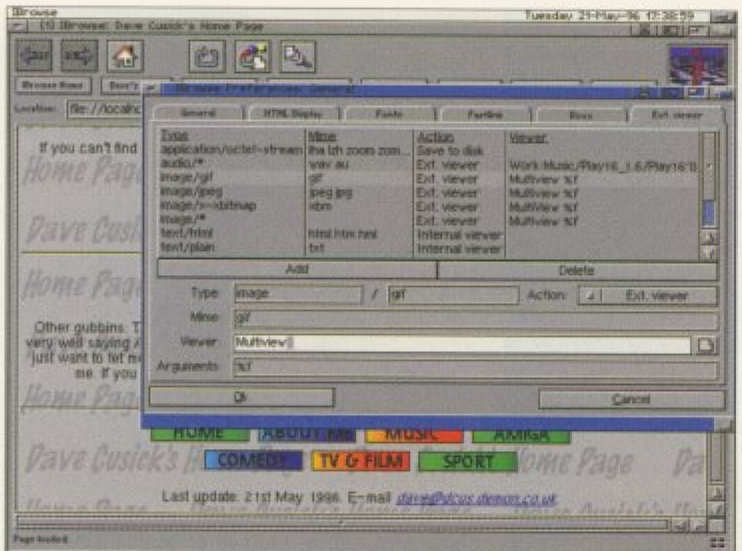
comms

Surfing Essentials

The beauty of the Web is that it presents an attractive and appealing side of the Net. It successfully blends text, graphics and sound together in true 'multimedia' buzzword fashion, to the extent that various Web sites contain large picture, sound and video archives just waiting to be downloaded. The only problem is that, on their own, most Web browsers simply don't know what to do with all the different file formats that are out there.

What's required is a method of deciding which format a given file is so that the file can be sent to an external program for viewing. Most graphical browsers have a window (probably called 'External Viewers' or something similar) through which the user tells the browser what to do with any given filetype. If you've never taken a look at this window before, now would be a good time to do so. In iBrowse it can be found under the General settings window. Incidentally, if you are a Voyager 1.0 user, unfortunately you can't configure external viewers as easily – but nevertheless, some of the programs I am about to mention could still prove invaluable.

There are four columns to the iBrowse External Viewer window, with the leftmost simply listing the type of file, the Mime column listing the extensions with which to identify the filetype, and the two right-hand columns telling iBrowse what to do with the file. Things will probably be set up with



Configuring the External Viewers in IBrowse

Multiview as the viewer for the majority of filetypes. There are, however, some superb viewers which are well worth using in preference to Multiview.

Probably the most useful is Play16, which has been featured on the *Amiga Computing* coverdisk in the past and is available from Aminet too. Once you've downloaded and installed this excellent sample player, you can configure iBrowse to use it very easily. Click on the audio/* line, and make sure the Action specified is External Viewer. The Mime text gadget underneath should contain 'wav' and 'au'. You can then use the file selector next to the Viewer line to locate Play16 on your hard drive. In the Arguments box simply specify "%f". Now whenever you select a Wav or Au sample on a Web page, Play16 will be called and you'll be able to hear these samples directly, without having to convert them into the Amiga 8SVX format.

For image viewing, there are plenty of programs which work more quickly than Multiview and can produce better results. I use Viewtek for viewing GIF images and FastJPEG for viewing Jpegs. Both of these programs are available on Aminet, and configuring iBrowse to use them is again extremely straightforward. There are also a couple of Mpeg players around, although you'll need quite a powerful machine to take full advantage of them.

Going off at a bit of a tangent, if you are lucky enough to have a fast Amiga and plenty of bandwidth, then you could well be interested in UnRealAudio. As the name suggests, this isn't an Amiga version of the currently fashionable and highly impressive RealAudio real-time sound system, but it is a passable imitation. It uses a codec called GSM, which is not as widely used on the Internet but can still be found with a little rummaging. UnRealAudio really requires a 68030+ Amiga and a 28.8k+ modem, a combination which alas I don't have (yet...) but I am reliably informed the results are not bad at all. If you're planning on trying it out, you will also need a couple of other small programs which can be found on Aminet, and which you will find details of in the UnRealAudio documentation. With a bit of fiddling, UnRealAudio could probably be set up to play GSM encoded files as a mime type directly from iBrowse too.

Of course, the final essential for the serious surfer is a decent e-mail program, which can be launched whenever you click on a Mailto: link. Full Mailto: support is not yet implemented in the pre-release demo of iBrowse, although other browsers such as Voyager and AWeb already have scripts available to launch mailing programs. For the moment, if you're an iBrowse user you'll have to make do with flicking across to your mailer and copying out the e-mail address, and looking forward to the release of a fully finished, all-singing, all-dancing iBrowse in the near future.



Utilities like Play16 can also easily be used with do-it-all AppIcons such as ClassAction

AMIGAS ONLY

The first Amiga-specific Internet provider in the UK has recently been launched. Wirenet supplies access through U-Net, and offers what it describes as 'A comprehensive suite of software' including programs to handle mail, news, FTPing and Web browsing, all of which can be launched from a central control window. Local call access is currently available for around 80 per cent of the country and Wirenet even provides some free Web space in case you're feeling creative.

The annual subscription rate is £115 and there is a one-off connection fee of £14 (including VAT). If you want to find out more, you can ring Neil Bothwick on 01925 791716 or e-mail him at info@wirenet.u-net.com. Wirenet also has a Web site at http://www.u-net.com/~wirenet/index.html.

HELLO THERE

If you've any comments, suggestions or queries you can contact me at dave@dcus.demon.co.uk, or davecus@idg.co.uk.

Dave Cusick offers someadvice for those using their Amiga to produce newsletters

publishing

Niftier news

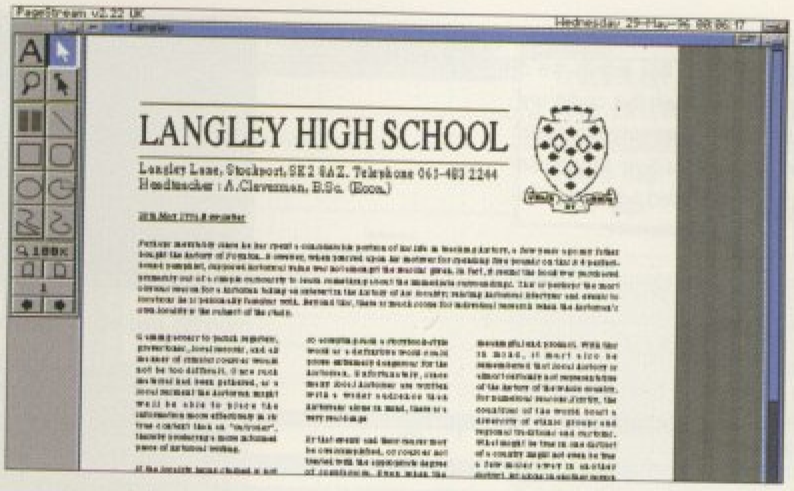
part 3

Whilst it is marvellous that home computers like the Amiga make it possible for almost anybody to produce their own newsletters, the results can often be less than stunning simply because the creator has not put a great deal of thought into the design. A small amount of planning can definitely help produce something more impressive.

Perhaps the most important point is that you should try to construct multi-page documents in a coherent style. A little variety in layout is obviously going to be necessary in order to make the document visually appealing, but if the pages have few common elements then readers will be put off.

Before you start laying out text and pictures, it might well be worth designing one or two template pages which you can then subtly vary for each page in the document. What you are aiming to create is a recognisable look for your publication. Decide, for instance, whether or not body text will be justified. Decide whether or not new paragraphs will be indented. Decide how many columns a typical page will have (there's nothing worse than a newsletter that keeps switching from three columns to two and back again). Once you've made those decisions, stick by them throughout your document.

A pitfall many occasional desktop publishers seem to fall into – and some not so occasional ones too, who ought to know better – is that of producing what amounts to a glorified list of fonts. Having a gigantic array of fonts at your disposal is a definite plus, but it certainly does not mean that they must all be used together within any given document. Mixing lots of different typefaces will inevitably produce cluttered and confused results. Try to stick to two or three styles at most on any one page, and indeed throughout the document. Instead of introducing new fonts, try using slightly larger point sizes, or underlined or italicised letters. Again though, don't go over the top because the more things you attempt to make stand out, the less impact highlighted text will have.



Using the reliable old PageStream 2 to produce a crisply designed school newsletter

You should also try to avoid chopping and changing between serif and sans-serif fonts. In general, serif fonts (the ones with fancy little bits at the top and bottom of certain letters, such as Times), produce more readable body text, although the text you are now reading is an example of how certain sans-serif fonts (without the fancy bits) can be equally effective. Headlines, on the other hand, have a greater impact if you use sans-serif fonts.

Once the basics are in place you can create pages quickly and easily by simply importing the text and graphics and tweaking them to produce the perfect page. At this stage you should keep an eye out for orphans and widows, those odd words or sentences stranded at the top or bottom of a text column all on their own. They spoil the look of any page and can be avoided simply by removing, inserting or repositioning a little bit of text somewhere, resizing a column slightly, or scaling a picture differently.

Just a couple of final points to bear in mind if, like many amateur newsletter designers do, you intend photocopying your newsletter. Firstly, you should avoid large areas of solid black. Whilst these might look magnificent when printed by your trusty inkjet, they will appear streaky and unattractive when photocopied. Secondly, colour photographs rarely photocopy well either. To get around this limitation you could use black and white film, or you could scan in pictures and convert them into high contrast black and white images – or alternately you could just opt to avoid photographs wherever possible. You might consider using a little clip art instead, preferably in a scalable format or, failing that, at least at a size where the lines will not appear jagged. Again, though, don't go over the top. A few well chosen and relevant images will look a thousand times better than a multitude of inappropriate pictures splashed haphazardly across a page.

Wedding Pictures

Artworks has just released a new package of clip art with the theme of Weddings which may well appeal to enterprising invitation designers out there. The images were created by professional artists and are designed to look good whether printed in colour or grey scales. The quality of the images is extremely high, and the five disks come with a booklet containing hints on using the artwork to the best effect and a complete printout of all the images for quick reference.

The images are available in Adobe Type 88 EPS format, compatible with Pagestream, Wordworth, and Final Writer, or in ProDraw format for Pagesetter, ProPage and Pagestream. The complete package costs £19.95. Artworks can be contacted on 01469 588138, or e-mailed at artworksuk@aol.com.



It might not look like much in four colours, but on paper Artworks' Wedding clip art is a real treat

Phil South continues with how to plan and execute an Amos program project

Back to basics

part 3

Last month we talked about interface design and I said that this month we'd be fleshing out some of the code we would need to use to activate our interface design and make it sensitive to mouse clicks. The pseudo code we started with was like this:

```
start
initialise variables
set up the screen size, colours etc.
load the interface graphic
start the music
start main program loop
        check for button hits
        if there is a hit then activate hit
subroutine
                if not continue
go back to start of main program loop

hit subroutine
        which button was it?
        make button sound to give feedback
        load chosen graphic or perform cho-
sen action
return to main loop
```

To get the interface sorted out, we first have to create the boxes on the screen, as we said last issue:

```
Screen Open 0,640,256,16,Hires
Box 10,10 To 440,160
Box 10,170 To 80,200
Box 95,170 To 170,200
Box 185,170 To 260,200
Box 275,170 To 350,200
Box 365,170 To 440,200
```

The boxes on the screen can then be saved off as an IFF file with Save Iff "whatever.iff", and you can then use this file to start work in Dpaint or Photogenics to make your interface. But this file can also form the basis of your interface code.

The co-ordinates for the boxes are the description of where the boxes are on the screen, so you can use these numbers to tell the Amiga where the boxes are and sense for mouse clicks in these zones. To create mouse zones you first need to set them up, then write code to access them when clicked on by the mouse. Let's open a screen:

```
Screen Open 0,640,256,16,Hires
Cls 0
```

Now we have a blank black screen. So first we reserve the zones we want to use, and in this example we want to use 5 so we type:

```
Reserve Zone 5
```

Now we use the text from the old box drawing program and edit it to create the zones:

```
Set Zone 1,10,170 To 80,200
Set Zone 2,95,170 To 170,200
Set Zone 3,185,170 To 260,200
Set Zone 4,275,170 To 350,200
Set Zone 5,365,170 To 440,200
```

forgetting, of course, the first box as this is the one we will be using later to show pictures of products. So now we have five zones on the screen. We can either load the picture we've created using the box picture we created before or, if you haven't done that yet, you can draw some boxes on the screen to give you an idea where the zones are, like so:

```
Box 10,170 To 80,200
Box 95,170 To 170,200
Box 185,170 To 260,200
Box 275,170 To 350,200
Box 365,170 To 440,200
```

This is just a re-run of the previous lines of code from the box drawing program. Okay, having done that we can now do the main program loop:

```
_MAINLOOP:
Gosub _MOUSECHECK
 Rem *** program goes here ***
Goto _MAINLOOP
```

Not very inspiring is it? Just a loop with a call to the mouse subroutine. Okay, let's make it actually do something. Firstly, give the routine a label so we can jump to it:

```
_MOUSECHECK:
```

and then we can sense the mouse clicks. Assign the current mouse zone and the mouse button status to a variable:

```
Z=Mouse Zone
C=Mouse Click
```

then test those variables every time around the loop to see if they are both true:

```
If C<>0 and Z=1 Then Bell
If C<>0 and Z=2 Then Boom
If C<>0 and Z=3 Then Shoot
If C<>0 and Z=4 Then Bell
If C<>0 and Z=5 Then Boom
Return
```



Follow the code and your interface will look this

If they are false, the program just goes merrily around the loop again without triggering anything. If it's true, though, you get a bang or boom, depending on which button you press. These are just noises I put in there to give you some feedback as to what you've pressed and to demonstrate that the program is working. In a later version of this program we'll be substituting another routine for those noises. Lastly there is a RETURN statement to take you back to the main loop.

NEXT MONTH

The program is starting to come together, so all we need now are some bits of music, some graphics and sound effects, and perhaps even a start-up and exit screen. Now we can sense mouse clicks on our interface, what do we want to happen when a key is pressed? The sound of a button clicking perhaps? And do we want the pictures of the products to occupy a screen above the buttons and a text description to appear to the right? What about music? What about a little voice-over? Find out where we go from here next month.

WRITE STUFF

If you have any other Amos programs or queries about Amos, please write to the usual address, which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print, i.e. no more than about 30-40 lines of code, and if possible make them use no external graphics. If they can't be used without them then be sure to provide them on the disk in native IFF format, and the same goes for sound files.

This month Paul Overaa takes a beginners' eye look at the world of Midi

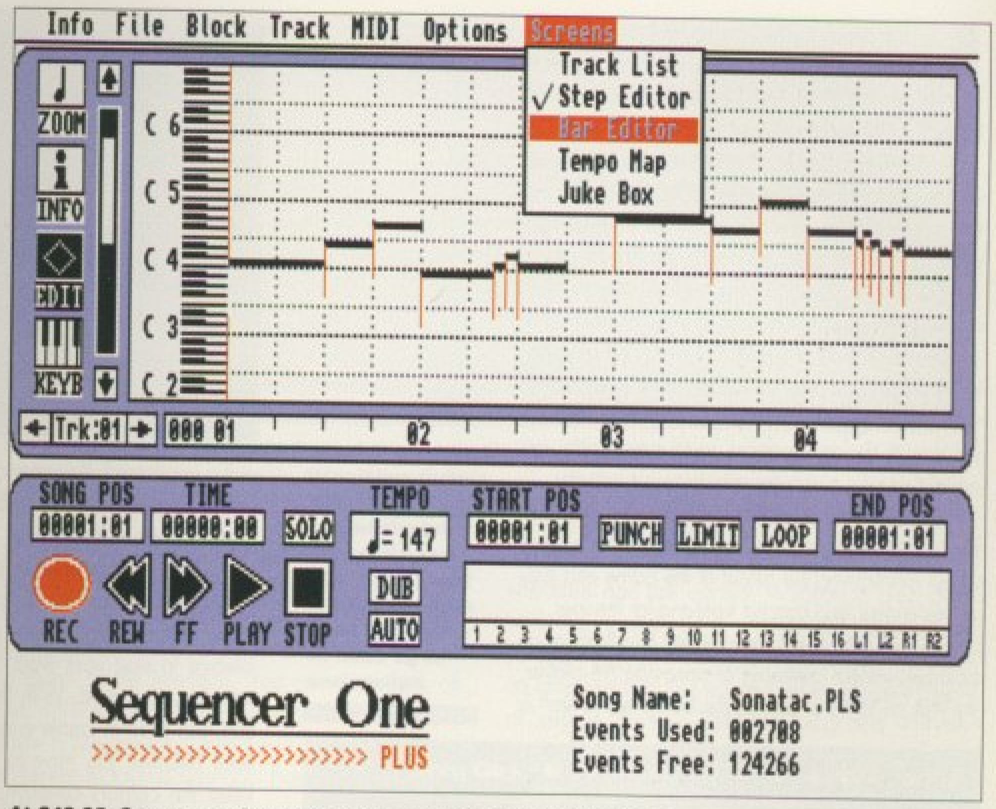
Midi – What it's all about

Despite more than a few recent musical hiccups in the Amiga world, we've had an increase in new users looking for Midi help within the pages of *Amiga Computing*. Many, it seems, have bought their machines second hand and this suggests that, despite the fact some users have chosen to desert the Amiga, for every person that has left... a new (and enthusiastic) Amiga user has arrived. This month it seemed like a good idea to take advantage of the hopefully temporary lull in the arrival of new music products and provide, for the benefit of these newcomers, a few details about what Midi actually is!

In short, Midi is a communications system designed to allow musical equipment from any number of different manufacturers to 'talk' to each other using digital messages. Amongst other things, it has encouraged the development and use of a piece of software known as the sequencer which is able to read, store, edit and replay the messages generated when Midi-based musical instruments are used.

All aboard

Assuming you already have an Amiga, all you'll need to get aboard the Midi bandwagon is a sequencer program, a Midi interface, and a keyboard synthesizer! You may, if they were not supplied with your synthesizer or Midi interface, also need one or two connecting leads. These are called Midi leads and can be purchased for a few pounds from almost all computer and music shops. You'll find plenty of Midi interfaces advertised (from about £20 upwards), and they are quite simple pieces of hardware which plug into the Amiga's serial port, thereby providing the right physical connections for linking up Midi equipment.



At £49.95, Sequencer One Plus from Sound Technology is one of the Amiga packages that makes an ideal entry level sequencer

Sequencers vary enormously in the options they provide but all will let you record; play back and edit Midi data. You will, for example, be able to add and delete notes, cut and paste fragments of music, change key, and improve the timing of the pieces of music you record (using so called quantisation options). Many sequencers adopt a tape recorder-style approach and the analogy is a good one because, conceptually, a sequencer is very much like a multi-track tape recorder. The main difference is that digital data is stored rather than audio sounds. Whichever sequencer you choose there will doubtless be an introductory tutorial in the manual and you should read, and work through, that material at the earliest opportunity.

Synthesizers are electronic instruments which can mimic the sounds of other instruments such as violins, organs, and drums. There are hundreds of different types of synths available (as you'll realise if you take a visit to your local music shop), but the good news is that even the cheapest models can sound good. Try to get a synth that is General Midi (GM) compatible because this will mean the synth will have a standardised set of sounds built into it.

Pressure sensitive

One thing you will not get with a low-priced synthesizer will be a keyboard which can sense how hard the keys have been pressed. Notes will be on or off but this, unless you spend a lot of money on a 'touch sensitive keyboard', is something you must live with.

A number of synths, namely those designed for home and non-professional use, do have amplifiers and speakers built in. Many synthesizers, however, do not, so have to be connected to a separate amplifier/speaker system in order to produce audible sounds. For home, low volume use you can normally use your home stereo system.

Getting connected

Whatever Midi synthesizer you get it will have at least two 5-pin DIN sockets. The one marked Midi-In is where the synth receives its Midi data, that marked Midi-Out is where data is transmitted. Sometimes you'll also find a Midi-Thru socket and this provides a duplicate of whatever is being received at the Midi-In terminal. Linking together a three-piece system is usually easy: Connect your Midi interface to the Amiga's serial port; take one Midi lead from the Midi-Out of the synthesizer to the Midi-In of the Midi interface (this will be the lead that, via the Midi interface, carries data from the synthesizer to the sequencer program); connect a second cable from the Midi-Out of the Midi interface to the Midi-In terminal of the synthesizer (it is this lead that carries information from the sequencer back to the synthesizer); and switch on, load your sequencer, and you'll be ready to start.

Once your Midi system is up and running you'll not only be able to create and play your own songs but will be able to purchase ready made song arrangements (as Midi files) that can be loaded into your sequencer and played. For this latter use, incidentally, a GM synthesizer is essential because almost all Midi files sold nowadays assume that a GM sound set is being used!

Steve White demonstrates the importance of multimedia design

2D paint

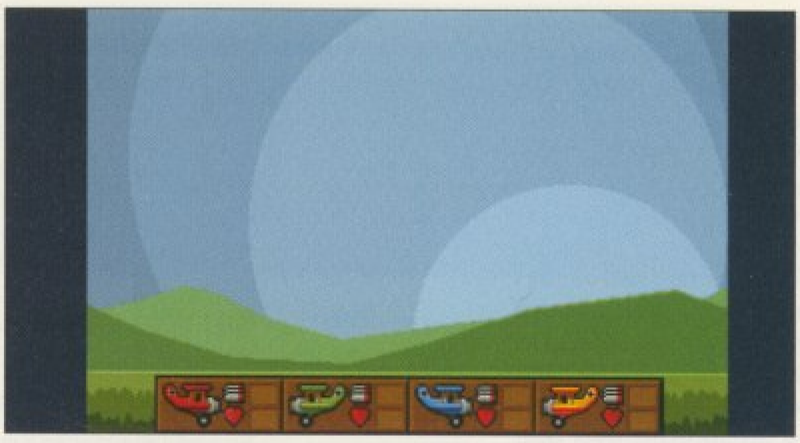
It's all in the game

Last month I talked about typefaces or fonts and this ties in nicely with this month's article – multimedia design. So what is multimedia design?

As an Amiga owner, you will come face to face with multimedia design every day. Multimedia is the creation of graphics that can be manipulated by a user, more often referred to as an interface. Obviously, Workbench applications use gadgets and windows, but computer games always have some kind of selection interface. It may be a far cry from landscapes and animation but it is an essential part of design in the computer age, and learning how to design interfaces could even create you an inlet into the computer entertainment industry.

Designing interfaces for games is never a simple case of slapping a few buttons on a page. It is about maintaining the mood of the game and providing a clear and concise front-end for the user.

The aim is to make the interface as attractive as possible without confusing or annoying the player. As with all forms of design, the best place to start is at the storyboard. You may decide to skip the storyboard stage of your design but I guarantee you will regret it later – it's a great deal easier to rub out pencil than to have to erase pixels.



Designing graphics for computer games can prove very rewarding – you may even secure yourself a career in the computer entertainment industry



Always keep a work page with all your interface and game elements. That way, if you make a mistake you won't have to go back to square one

Draw your interface on paper first and you will save yourself precious time at the computer. Don't attempt to start your work before you are happy with the storyboard. With the storyboard complete you then need to create a suitable palette. This isn't easy because you have to maintain a mood and keep the colours consistent with the rest of the game. It's probably a good idea to choose a series of colour shades as opposed to single colours, and in my experience it's far easier to work with fewer colours than it is with lots.

Elements

With most interface designs there are invariably two elements which make up the basic front-end – the backdrop and the selectors. The backdrop is self explanatory and the selectors are the various buttons, menus and text that the user selects in order to move around the front-end.

More and more computer game artists are going for subtle backgrounds in their interface design. The MagicWB Icon enhancer kit contains some superb examples of subtle backdrops such as marble, wood, rock and space. As you are effectively creating a multimedia environment, subtle backdrops are excellent for this type of work.

The obvious alternative is to create busy looking backdrops but the danger with this type is that they very often clutter the interface and drown the selectors, which are essentially the most important element.

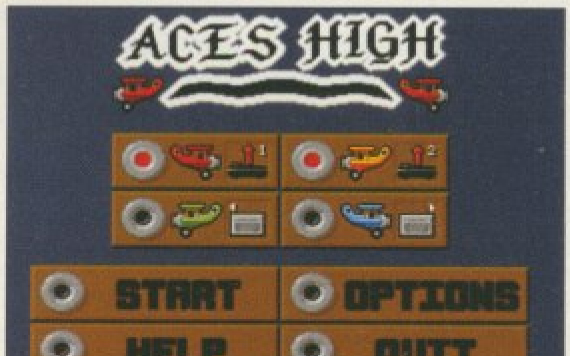
There are two other options you can employ with backdrop design and one is to use a single colour backdrop which is easy to create and fairly safe. The other is to create an image indicative of the game subject matter but to re-sample it with only a few colours of a single shade. If you can do this with a real life scan, the effect will look even more impressive as well as saving you time-consuming and often painful work.

You should also understand that using a high resolution with respect to the palette size is, in most cases, not practical for computer games. The less colours you use the faster your interface will be and, more than likely, the better it will look. If you are looking for inspiration, just load up your favourite computer game and ask yourself what it is you like about the front-end.

The right image

If you have decided to create selectors with graphic imagery remember that you will need to keep the images as clear and obvious as possible. Using text is clearly not a problem but using images to represent options is not easy.

The images have to be good enough to make the user feel comfortable using them and that he or she actually realises the functions they represent. As you can see from the picture, the four control selector buttons below the Aces High title clearly represent either joystick or keyboard control. However, for the four main selectors at the bottom half of the interface I opted for text-based selectors because I decided that too many graphic images would detract from the overall design.



The interface or front-end to a game must be good enough to make the user want to continue further

You will also notice that the actual selector buttons (the circular buttons) are clearly marked either on or off, so there really can be no mistake as to which option is selected and which is not.

Remember to keep a work page containing all the elements of your interface. That way, if you do manage to make a mistake or decide to alter an element of the design you will have an original copy to fall back on.

Steve White explains how you can create stunning applications in Blitz Basic 2

Blitz Basic 2

Get blitzed

Welcome to this, the first instalment of the *Amiga Computing* Blitz Basic 2 tutorial. The aim of this tutorial is not to teach you the Blitz Basic language but to demonstrate how to implement commands in order to create a fully working Workbench application.

The application we will be building is called BOOTit and will allow the user to disable programs from the WBStartup drawer before Workbench boots. Not only this, it will feature a user-friendly GadTools interface as well as plenty of other useful options.

In order to follow and use this tutorial you will need Blitz Basic 2 Version 2.10, Workbench 2.0 or above, as well as access to the user commands. I expect you are already using version 2.10 of Blitz Basic 2 and have a fundamental understanding of the basic (excuse the pun) commands. For those of you who have a coverdisk version of Blitz Basic 2, I recommend you register for the latest version immediately – this tutorial will not work for you otherwise.

While I will be explaining how to build an application in Blitz Basic 2, I will also be taking time out where necessary to provide you with hints and tips to get the most out of programming with Blitz, as well as useful contacts you might be interested in to find out more information regarding this excellent but poorly supported programming language. Before you start any programming project you should have a good idea of what the program is going to look like, what features it will contain and how they will be implemented. The best place to start is to design a rough of the interface. You can then think of the different functions you will need and add them to the design. Once you have noted all the different functions you can then work out how they will operate.



```
File: BOOTit02
ResetList contents()
For l=0 To ec
  If NextItem(contents())
  EndIf
Next l
Let stat=contents()\status
If stat=0
  GTChangeList 0,gadgetid+1
  Let contents()\status=1
  Let contents()\name=contents()\name+" +"
  GTChangeList 0,gadgetid+1,contents()
EndIf
If stat=1
  GTChangeList 0,gadgetid+1
  Let contents()\status=0
  Let contents()\name=Left$(contents()\name,Len(contents()\name))
  GTChangeList 0,gadgetid+1,contents()
EndIf
Goto loop

.allstatus
GTChangeList 0,gadgetid+1
ResetList contents()
For l=1 To amount
  If NextItem(contents())
    Let stat=contents()\status
    If stat=0
Line:201    Column:1    Largest Mem (K):
```


Programming in Blitz Basic 2 can be problematic at times and the poor manuals do nothing to help

Understanding

Fortunately, you can safely skip the above for this project as I have already done this work, and the code explanations should help you understand how each section of the program works. This is probably a good point in which to give you a rough description of what BOOTit does.

The finished BOOTit program will, fundamentally, allow the user to disable WBStartup programs so they are not executed when Workbench loads. Why would you want to do this? Well, two reasons, the first being that disabling programs from running saves memory and also some programs clash when run together. By holding down the right mouse button when booting Workbench, the BOOTit interface will load and the current WBStartup programs will be read and presented in a list (GTListView). The user will then be able to click on programs in this list and either disable them or enable them – disabled programs will be marked with a + sign.

Fortunately, Blitz Basic affords you a great deal of power when building Intuition applications, so BOOTit will also feature the ability to disable the User-Startup file.

BOOTit will work by adding .BOOTit to the selected program's filename. As Workbench only executes programs in the WBStartup drawer with .info at the end of their filenames, these programs will be ignored. However, the user will not be very pleased when he/she finds that their WBStartup programs have been renamed and, therefore, we will need to write another program called EnableBOOTit to rename the disabled programs back to their original names. For this to work we will need to make BOOTit save a file containing a list of the disabled programs before it quits so that EnableBOOTit will be able to rename the programs.

So, as of next month I will be providing source code and explanations for BOOTit. As BOOTit and EnableBOOTit will feature user commands you will be expected to have the latest user commands.

The application you will be creating will allow you to disable and enable programs in the WBStartup drawer when Workbench boots



BOOTit Functions

Main Interface – the interface should be very user-friendly featuring GadTools buttons etc.

GadTools – WBStartup Contents GTListView. This will display the contents of the WBStartup drawer.

None/All GTCycle – clicking this to None will de-select all the WBStartup drawer programs and clicking to All will select them all.

Rescan GTButton – this button will rescan the WBStartup drawer and update the WBStartup Contents GTListView.

About GTButton – display About BOOTit information such as author and special thanks.

Okay GTButton – this will execute the disabling operation as specified and quit BOOTit.

Cancel GTButton – cancel the BOOTit program and the disabling operation.

Disable User-Startup File GTCheckbox – this will toggle between on an off and will decide whether the User-Startup file is disabled or not.

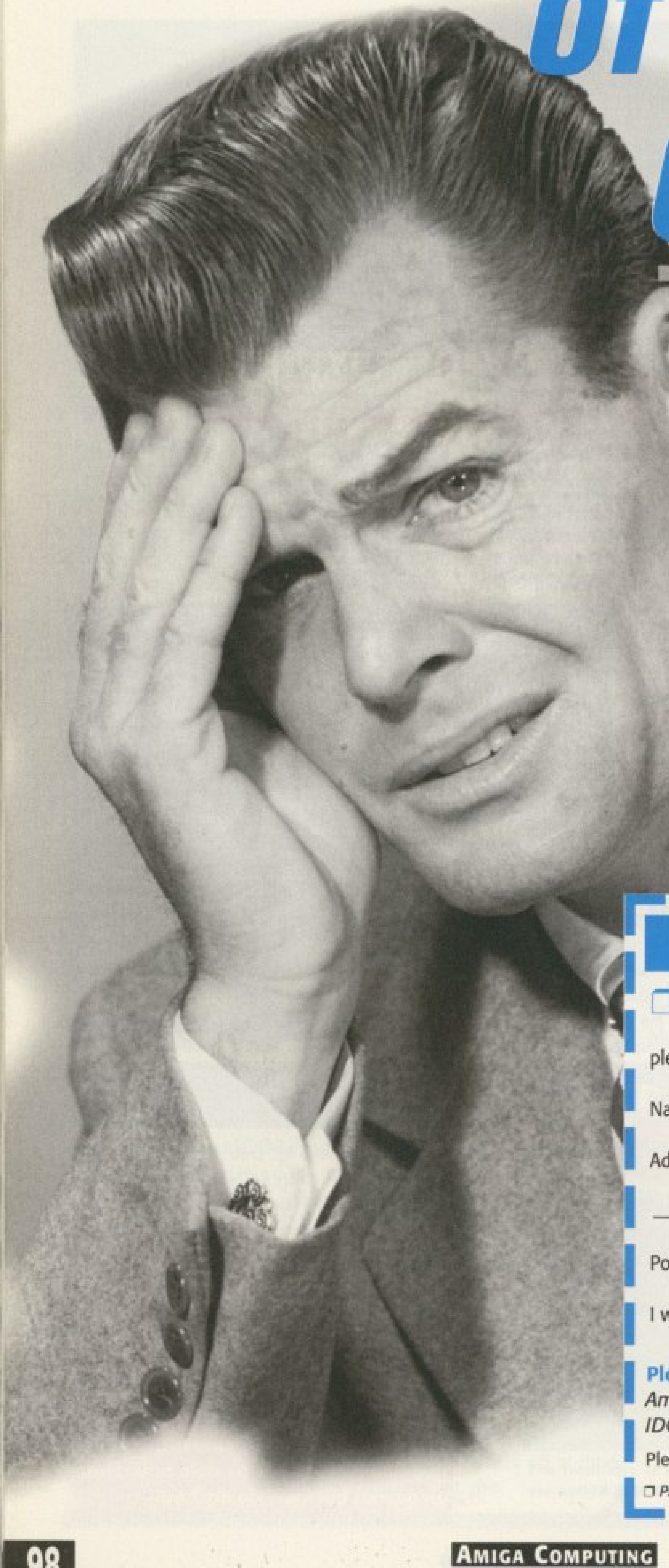
Report GTText – reports to the user what the program is doing.

Blitz Problems

If you have any problems with this tutorial or Blitz Basic 2 in general I can be contacted at the following e-mail address stevew@idg.co.uk. I cannot guarantee that I will be able to answer all queries but I will do my best.

Fed up of misplacing precious copies of your Amiga Computing?

only to find them battered, and shredded



Well help is at hand with this amazing offer from Amiga Computing.



Only £4 will secure your very own designer *Amiga Computing* binder which holds up to 13 issues of your favourite mag.

To get your binder all you have to do is fill in the form below, and send it off with a cheque or postal order for £4 and we'll post it out to you free of charge.

Binder order form

❒ Please send me my exclusive *Amiga Computing* binder now 9000

please send my binder to:

Name ____________________

Address ____________________

____

Postcode __________ Day Telephone Number __________

I would like .... binders at £4 each. Enclosed is my Cheque/P.O. for a total payment of £..........

Please send your completed form to:
Amiga Computing Binder Offer
IDG Media FREEPOST (SK3038), Macclesfield, Cheshire SK10 4NP

Please allow 28 days for delivery. Offer subject to availability

❒ *Please tick if you do not wish to receive promotional information from other companies*



BREATHLESS
CATCH YOUR BREATH. IT MAY BE YOUR LAST...
AMIGA SUPERSTAR
AMIGA GOLD FORMAT
FREE DELIVERY
£24.99
"Breathless has boldly taken the Amiga where no Amiga has gone before." AMIGA FORMAT MAGAZINE
"At the moment there's nothing like it. This game plays as well as it looks" 92% CU AMIGA MAGAZINE
ORDER HOTLINE
01234 273000
256 AGA COLOURS • 3D RAYTRACED GRAPHICS • 360° FIRST PERSON PERSPECTIVE
20 AWESOME LEVELS • MULTIPLE WEAPONS SYSTEMS • REALISTIC LIGHTING EFFECTS
ATMOSPHERIC SOUND & MUSIC • HD INSTALLABLE • AVAILABLE FOR THE A1200/4000
POWER COMPUTING LTD 44A/B STANLEY ST. BEDFORD MK41 7RW
PLEASE RUSH ME A COPY OF 'BREATHLESS'
NAME
ADDRESS
POSTCARD
TEL NO.
I ENCLOSE A CHEQUE/PO FOR £
PLEASE MAKE CHEQUES PAYABLE TO POWER COMPUTING LTD

So fast it's out of this world!

ENTERPRISE 288 MODEM

BT Approved

Introducing the brand-new Enterprise 288 modem from HiSoft. This V34, 28.8Kbps fax modem is your perfect companion for super-fast access to bulletin boards, sharing information with your friends and colleagues or exploring the mind-blowing power of the Internet. Whatever your needs, the Enterprise 288 will meet them and, together with Surf Squirrel, often exceed them.



Picture shows: Enterprise 288 modem (£169), Jaz drive (£529) and Surf Squirrel (£99.95)

The Enterprise 288 modem can be used on any Amiga computer. To see it really fly, plug the modem into the amazing Surf Squirrel interface for the A1200 and you will see reliable transfer speeds of up to 115,200 bps, saving you time and, of course, money.

NET&WEB

The Internet… Easy as 123

1 EASY TO INSTALL

Installing Net&Web couldn't be simpler, just enter your login name, password and Internet Service Provider then sit back and let Net&Web do the rest. Within a few minutes you'll be surfing the Web with IBrowse, sending email to your friends and downloading the latest demos.

2 EASY TO CONNECT

Net&Web is compatible with a wide range of Internet Service Providers (ISPs), including Demon Internet, The Net, CIX and many others. Just choose your ISP from our installation list and Net&Web will set up your Amiga to connect at their local point-of-presence.*

3 EASY TO USE

Surfing with Net&Web is so easy; the super-slick IBrowse (available separately) makes cruising the information superhighway as simple as clicking a button. Also included in the Net&Web pack is the powerful MetaTool email program and the DaFTP program for file transfer.

* Note that, for now, we use the slip protocol and AmiTCP because this is far less expensive than the current alternatives. However, all Net&Web owners will be able to upgrade to the brilliant, new TermiteTCP (which supports ppp) at a reduced price.

HOT NEWS! HOT NEWS! HOT NEWS! HOT NEWS!

All Net&Web Packs now include a choice of two great connection deals:

- *one months' free trial with Demon Internet, the UK's largest service provider, or*
- *free connection plus one month free with The Net (arranged by HiSoft & Frontier Communications, subject to a minimum 3 months' connection)*

Net&Web software from HiSoft - making the Internet as easy as 1, 2, 3 …

Enterprise 288 Specifications

Data Format: Serial, binary, asynchronous, 7 or 8 data bits. Parity: odd, even, none.

DTE Interface Speeds: 300, 600, 1200, 2400, 4800, 9600, 19200, 1200/75, 38400, 57600, 115200.

Operating Modes: Manual/Auto originate, Manual/Auto answer, Manual/Auto dial.

Dialling: Touch-tone or rotary/pulse.

Communication Mode: Full and half duplex transfer modes on two-wire switched telephone channels.

Fax Interface: Class 1 & 2.

Telephone Line: 600-ohm, balanced dial-up interface meeting BT specifications. One BS6312 type plug. REN 1.0.

Serial Interface: 25-pin RS232/V.24 interface with female DB-25 connector. Supplied with 25-way modem cable.

Power Supply: Plug-top 240VAC, 50Hz, supplying 9Vac @ 700ma.

Other: BT approved, CE compliant. Visual monitor of all major functions plus in-built speaker. Supplied with manual and warranty card (1 year).

Please specify which serial cable you need when ordering

To Order

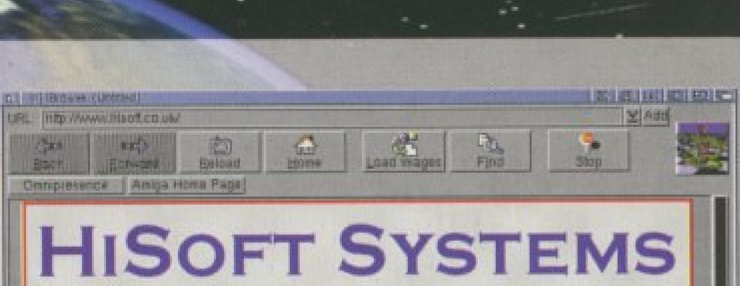
Just Freecall 0500 223 660, armed with your credit/debit card or write to us at HiSoft, The Old School, Greenfield, Bedford MK45 5DE, enclosing a cheque/PO, made payable to HiSoft.

Prices

Enterprise 288 Modem	**£169**
Net&Web Pack	**£39.95**
Enterprise 288 + Net&Web	**£199**
Surf Squirrel	**£99.95**
Squirrel Surf 288 Pack *includes Enterprise 288 modem, Net&Web and Surf Squirrel*	**£289**

All prices include VAT. Please add £3 P&P within the UK, £6 for next day service. © HiSoft 1996, E&OE. Please call +44 1525 718181 for export shipping costs.

HiSoft SYSTEMS
The Old School, Greenfield
Bedford MK45 5DE UK
Tel: +44 (0) 1525 718181
Fax: +44 (0) 1525 713716
email: sales@hisoft.co.uk



The IBrowse web browser supplied with Net&Web